

DEFENSE

Joint Strike Fighter Program

**Memorandum of Understanding
Between the
UNITED STATES OF AMERICA
and OTHER GOVERNMENTS**

Signed at Washington, Oslo, and
Copenhagen November 14, 2006, December 11, 2006,
December 12, 2006, January 25, 2007, January 31, 2007,
February 7, 2007, and February 27, 2007

with

Annexes



NOTE BY THE DEPARTMENT OF STATE

Pursuant to Public Law 89—497, approved July 8, 1966
(80 Stat. 271; 1 U.S.C. 113)—

“...the Treaties and Other International Acts Series issued under the authority of the Secretary of State shall be competent evidence . . . of the treaties, international agreements other than treaties, and proclamations by the President of such treaties and international agreements other than treaties, as the case may be, therein contained, in all the courts of law and equity and of maritime jurisdiction, and in all the tribunals and public offices of the United States, and of the several States, without any further proof or authentication thereof.”

MULTILATERAL

Defense: Joint Strike Fighter Program

*Memorandum of understanding signed at Washington, Oslo, and Copenhagen
November 14, 2006, December 11, 2006, December 12, 2006,
January 25, 2007, January 31, 2007, February 7, 2007, and
February 27, 2007;
Entered into force December 31, 2006.
With annexes.*

MEMORANDUM OF UNDERSTANDING
AMONG THE
DEPARTMENT OF DEFENCE OF AUSTRALIA
AND THE
MINISTER OF NATIONAL DEFENCE OF CANADA
AND THE
MINISTRY OF DEFENCE OF DENMARK
AND THE
MINISTRY OF DEFENCE OF THE REPUBLIC OF ITALY
AND THE
STATE SECRETARY OF DEFENCE OF THE KINGDOM OF THE
NETHERLANDS
AND THE
MINISTRY OF DEFENCE OF THE KINGDOM OF NORWAY
AND THE
UNDERSECRETARIAT FOR DEFENSE INDUSTRIES ON BEHALF OF THE
MINISTRY OF NATIONAL DEFENSE OF THE
REPUBLIC OF TURKEY
AND THE
SECRETARY OF STATE FOR DEFENCE OF THE
UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
AND THE
SECRETARY OF DEFENSE ON BEHALF OF THE DEPARTMENT OF DEFENSE
OF THE UNITED STATES OF AMERICA
CONCERNING THE PRODUCTION, SUSTAINMENT,
AND FOLLOW-ON DEVELOPMENT OF THE
JOINT STRIKE FIGHTER

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CONCERNING THE PRODUCTION, SUSTAINMENT,
AND FOLLOW-ON DEVELOPMENT OF THE
JOINT STRIKE FIGHTER
(Short Title - JSF PSFD MOU)

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INTRODUCTION

The Department of Defence of Australia, the Minister of National Defence of Canada, the Ministry of Defence of Denmark, the Ministry of Defence of the Republic of Italy, the State Secretary of Defence of the Kingdom of the Netherlands, the Ministry of Defence of the Kingdom of Norway, the Undersecretariat for Defense Industries on behalf of the Ministry of National Defense of the Republic of Turkey, the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, and the Secretary of Defense on behalf of the Department of Defense of the United States of America, hereinafter referred to as the "Participants":

Having a common interest in defense;

Recognizing the benefits to be obtained from international cooperation regarding standardization, rationalization, and interoperability of military equipments;

Desiring to improve their mutual conventional defense capabilities through the application of emerging technology;

Recognizing the Participants' cooperation under the Memorandum of Understanding (MOU) among the Department of Defence of Australia and the Minister of National Defence of Canada and the Ministry of Defence of Denmark and the Ministry of Defence of the Republic of Italy and the State Secretary of Defence of the Kingdom of the Netherlands and the Ministry of Defence of the Kingdom of Norway and the Undersecretariat for Defense Industries on behalf of the Ministry of National Defense of the Government of the Republic of Turkey and the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland and the Secretary of Defense on behalf of the Department of Defense of the United States of America concerning the Cooperative Framework for System Development and Demonstration of the Joint Strike Fighter (JSF SDD Framework MOU) of January 17, 2001, as amended, and the Participant-specific Supplements thereto;

Desiring to cooperate in the production, sustainment, and follow-on development of the Joint Strike Fighter (JSF) to satisfy similar operational requirements;

Recognizing the benefits of continued cooperation in the JSF Program, and seeking to capitalize on the lessons learned from

their previous experience in that program and other international cooperative programs;

Seeking to establish a model for international cooperative acquisition programs;

Affirming their intent to use their best efforts to ensure that international cooperation under this PSFD MOU will maximize benefits (including financial) that will accrue to each of them;

Seeking to establish a robust vehicle of cooperation that will span the life cycle of the JSF Air System;

Recognizing the importance of technological and industrial cooperation to the national security of all Participants, and seeking to reduce barriers to that cooperation between the Participants; and

Recognizing that industrial participation will be an important parameter in the Participants' various national decision-making processes;

Have reached the following understandings:

SECTION I

DEFINITIONS

The Participants have jointly decided upon the following definitions for terms used in this MOU:

- Autonomic Logistics (AL) An integrated, knowledge-based system that encompasses JSF maintenance planning, manpower and personnel, supply support, support equipment, training, technical data, computer resource support, facilities, packaging, handling, storage and transportation, prognostics and health management, and design interface while coordinating with mission planning, engineering, safety, command and control functions, within a respective logistics infrastructure to support mission execution.
- Autonomic Logistics Global Sustainment (ALGS) The worldwide cooperative sustainment system for the JSF Air System consisting of a predominantly shared common logistics enterprise tailored to the Participants' needs. It consists of both Government and industry sustainment efforts, including interfaces, as determined by the Participants, between ALGS and Participants' national support capabilities outside of ALGS.
- Autonomic Logistics Information System (ALIS) An integrated Information system consisting of hardware and software operating on networks provided by the Participants or their Contractors and facilitating Information exchange with each Participant's appropriate Information systems. ALIS supports the operation, including mission planning, and maintenance of the JSF Air System.
- Best Value Maximizing affordability consistent with broader Project objectives..

Classified Information	Official Information that requires protection in the interests of national security and is so designated by the application of a security classification marking. This Information may be in oral, visual, magnetic, or documentary form or in the form of equipment, material or technology.
Composite Share Ratio	A formula used to calculate the Participants' proportionate share of the costs under this MOU, based on the Participants' estimated JSF Air Vehicle procurement quantities.
Consolidated Procurement Request	A document that combines the requested articles and services contained in more than one Participant Procurement Request.
Contract	Any mutually binding legal relationship under national laws that obligates a Contractor to furnish supplies or services, and obligates one or more of the Participants to pay for them.
Contracting	The obtaining of supplies or services by Contract from sources outside the Government organizations of the Participants. Contracting includes description (but not determination) of supplies and services required, solicitation and selection of sources, preparation and award of Contracts, and all phases of Contract administration.
Contracting Agency	The entity within the Government organization of a Participant that has authority to enter into, administer, or terminate Contracts.
Contracting Officer	A person representing a Contracting Agency of a Participant who has the authority to enter into, administer, or terminate Contracts.
Contractor	Any entity awarded a Contract by a Participant's Contracting Agency.

Contractor Support Personnel	Persons specifically identified as providing administrative, managerial, scientific, or technical support services to a Participant under a support Contract.
Controlled Unclassified Information	Unclassified Information to which access or distribution limitations have been applied in accordance with applicable national laws or regulations. It includes Information that has been declassified but remains controlled.
Financial Cost Ceiling	The maximum amount of shared Financial Costs that will be dedicated to the Project.
Financial Costs	Project costs met with monetary contributions.
Host Participant	The Participant to whose facility a JSF CPP is assigned.
Information	Knowledge that can be communicated by any means, regardless of form or type, including, but not limited to, that of a scientific, technical, business, or financial nature, and also including photographs, reports, manuals, threat data, experimental data, test data, computer software, designs, specifications, processes, techniques, inventions, drawings, technical writings, sound recordings, pictorial representations, and other graphical presentations, whether in magnetic tape, computer memory, or any other form and whether or not subject to Intellectual Property rights.
Intellectual Property	In accordance with the World Trade Organization Agreement on Trade-related Aspects of Intellectual Property Rights of April 15, 1994, all copyright and related rights, all rights in relation to inventions (including Patent rights), all rights in registered and unregistered trademarks (including service marks), registered and unregistered designs, undisclosed Information (including trade secrets and

know-how), layout designs of integrated circuits, and geographical indications, and any other rights resulting from creative activity in the industrial, scientific, literary, and artistic fields.

**Jointly Acquired
Equipment**

Any material, equipment, end item, subsystem, component, special tooling or test equipment that is obtained and jointly funded by some or all of the Participants under this MOU.

JSF Air System

The JSF Air System consists of two inter-related elements: the JSF Air Vehicle and Autonomic Logistics that operate within the context of external interfaces and environments.

JSF Air Vehicle

The JSF Air Vehicle includes the three variants of the JSF aircraft and the propulsion systems, as well as the on-board hardware, the ancillary mission equipment necessary to employ the JSF Air System, and the software necessary to perform assigned missions, autonomous operation and communication with off-board systems.

**JSF Cooperative
Project Personnel
(JSF CPP)**

Military members or civilian employees of a Parent Participant assigned to the facilities of another Participant who perform managerial, engineering, technical, administrative, Contracting, logistics, financial, planning or other functions in furtherance of the Project.

**JSF Data Library
(JDL)**

A Contractor provided and operated web-based tool designed to contain JSF Program Information including, but not limited to, prime Contract deliverables and subcontract management data, and other general Program-related Information such as policies, directives, plans and processes.

JSF Production, Sustainment, and Follow-on Development Phase (JSF PSFD Phase)	The portion of the JSF Program that will produce, sustain, and provide follow-on development for the JSF Air System.
JSF Program	Efforts to achieve a three variant family of the JSF Air System, consisting of JSF concept demonstration, system development and demonstration, production, sustainment, and follow-on development.
JSF Purposes	Performance of Project activities pursuant to the JSF PSFD MOU; and any future efforts by a Participant (collaboratively, nationally, or under U.S. Department of Defense (DoD) Foreign Military Sales arrangements) for the production, sustainment, and follow-on development of any of the three variants of the JSF Air System, including efforts required for interfaces between the JSF Air System and other systems operated by the Participants.
Line Shutdown	Efforts associated with the Contractors' cessation of production of JSF Air Vehicles.
National Audit Institution	An audit agency or authority within a Participant's Government.
National Security Authority/ Designated Security Authority (NSA/DSA)	The security office approved by national authorities to be responsible for the security aspects of this MOU.
Non-commercial	Used for governmental activities only; not available for disclosure to or use by the public.
Non-financial Costs	Project costs met with non-monetary contributions.

Operational Requirements Document (ORD)	The document originally developed during the JSF concept demonstration phase and subsequently modified during the JSF system development and demonstration phase that defines the overall JSF Air System level operational requirements.
Original Equipment Manufacturer (OEM)	The original manufacturer of a hardware item, component, sub-component, or software.
Parent Participant	A Participant that sends its JSF CPP to the facilities of another Participant.
Partially Common	Common to more than one but less than all Participants.
Participant	A signatory to this MOU represented by its military and civilian personnel. Contractors and Contractor Support Personnel will not be representatives of a Participant under this MOU.
Participant Procurement Request (PPR)	A document prepared and submitted by a Participant that describes the desired articles and services that the Participant seeks to acquire through a Contract. The document, which generally contains a statement of work and a specification, constitutes a formal request to a Contracting Officer to initiate a solicitation to a Contractor or Contractors in order to award or modify a Contract.
Patent	Grant by any government or a regional office acting for more than one government of the right to exclude others from making, using, importing, selling, or offering to sell an invention. The term refers to any and all patents including, but not limited to, patents of implementation, improvement, or addition, petty patents, utility models, appearance design patents, registered designs, and inventor certificates or like statutory protection, as well as divisions, reissues, continuations, renewals, and extensions of any of these.

Privileged Safety Information	Information regarding safety matters that is marked and handled as Controlled Unclassified Information and provided to the Participants' civilian and military employees and Contractors who have a need to know such Information to improve safety as determined by each Participant's national safety authorities.
Project	The cooperative JSF PSFD Phase efforts of the Participants under this MOU to achieve the objectives in Section II (Objectives) and accomplish the work in Section III (Scope of Work).
Project Background Information	Information not generated in the performance of the Project.
Project Equipment	Any material, equipment, end item, subsystem, component, special tooling, or test equipment provided by one Participant to another Participant for use in the Project.
Project Foreground Information	Information generated in the performance of the Project.
Project Information	Any Information provided to, generated in, or used in this Project.
Project Invention	Any invention in any field of technology, provided it is new, involves an inventive step, is capable of industrial application, and is formulated or made (conceived or "first actually reduced to practice") in the course of work performed under the Project. The term, "first actually reduced to practice", means the first demonstration, sufficient to establish to one skilled in the art to which the invention pertains, of the operability of an invention for its intended purpose and in its intended environment.

Prospective
Contractor

Any entity that seeks to enter into a Contract to be awarded by a Participant's Contracting Agency and that, in the case of a solicitation involving the release of export-controlled Information, is eligible to receive such Information.

Then Year (TY)
U.S. Dollars

U.S. Dollars that reflect purchasing power at the time expenditures are actually made. Future costs stated in Then Year U.S. Dollars are projected amounts to be paid.

Third Party

A government other than the Government of a Participant and any person or other entity whose government is not the Government of a Participant.

SECTION II

OBJECTIVES

2.1 The overall objective of the JSF PSFD MOU is the cooperative production, sustainment, and follow-on development of the JSF Air System to meet the requirements of the Participants. This MOU establishes the framework that will enable the Participants to cooperate effectively to accomplish this objective and that will detail their responsibilities and benefits under this MOU.

2.2 The specific objectives to be accomplished are:

- 2.2.1 To produce and sustain the most advanced, affordable, JSF Air System for the Participants;
- 2.2.2 To identify opportunities for the most cost-effective common sustainment of the Participants' JSF Air Systems taking into account the Participants' capabilities;
- 2.2.3 To implement Autonomic Logistics Global Sustainment (ALGS) through associated sustainment Contracts, supporting peacetime and increased operational tempo, and delivering continuous improvements in both cost of ownership and JSF Air System performance to all Participants;
- 2.2.4 To participate in follow-on development, which will consist of identifying and developing upgrades (preferably common) that will ensure that the JSF Air System remains affordable, interoperable, operationally effective, operationally safe, and operationally suitable throughout its life;
- 2.2.5 To foster the exchange of ideas and promote collaborative initiatives among the Participants' JSF fleets and supporting industries;
- 2.2.6 To provide, and permit the Participants to utilize, all Project Information on the JSF Air System acquired in the implementation of Section III (Scope of Work), in accordance with Section IX (Disclosure and Use of Project Information), to enable the Participants to make informed and timely

national decisions concerning the production, sustainment, and follow-on development of the JSF Air System, to enable them to utilize and sustain the JSF Air System, and to interface the JSF Air System with their unique national weapons systems, logistics support systems, equipment, or software for national and coalition operations of the JSF Air System;

- 2.2.7 To maximize JSF Air System commonality to achieve affordability and coalition interoperability;
- 2.2.8 To ensure security of supply for the JSF Air System throughout its life;
- 2.2.9 To develop and implement cooperative management and control processes to ensure successful, cost-effective execution of the Project; and
- 2.2.10 To promote new, as well as continued, involvement of the industries of the nations of the Participants in the production, sustainment and follow-on development of the JSF Air System.

SECTION III

SCOPE OF WORK

3.1 The overall Project work to be performed under this MOU is the production, sustainment, and follow-on development of an affordable, three-variant family of the JSF Air System, which consists of the following: Conventional Take-Off and Landing (CTOL) variant; catapult-launched, arrested-landing Carrier Variant (CV); and shipboard capable Short Take-Off and Vertical Landing (STOVL) variant. The Project efforts will reflect the JSF Air System requirements contained in joint capabilities documentation developed and approved in accordance with the processes described in Annex E (Follow-on Development Process).

3.2 Production

3.2.1 The production work will include, but will not be limited to, the following:

3.2.1.1 Production of the JSF Air Vehicle, including propulsion systems (both F135 and F136).

3.2.1.1.1 The Participants' estimated procurement quantities in Annex A (Estimated JSF Air Vehicle Procurement Quantities) will be used in production planning. Actual procurement of JSF Air Vehicles by the Participants will be subject to the Participants' national laws and regulations and the outcome of the Participants' national procurement decision-making processes. Each Participant's actual procurement quantities of JSF Air Vehicles and propulsion systems will be established in Participant Procurement Requests (PPRs), which will be submitted by that Participant through the procedures described in Section VI (Contracting Provisions).

3.2.1.1.2 The U.S. DoD will grant and maintain JSF Air System certifications pursuant to criteria developed under the JSF

SDD Framework MOU and this MOU. U.S. DoD will provide necessary insight and participation in the JSF Air System certification process to the other Participants to enable the recognition of the U.S. DoD-granted certifications by those Participants' cognizant authorities.

3.2.1.1.3 Configuration changes resulting from follow-on development efforts under this MOU will be incorporated during production runs of the affected article or will be implemented through production and installation of retrofit kits.

3.2.1.2 Procurement, repair, and maintenance of test and tooling equipment to support production.

3.2.1.3 Shutting down production lines and disposition of Jointly Acquired Equipment.

3.2.2 The U.S. DOD will use its best efforts to provide the other Participants with the opportunity to obtain equipment and systems produced under U.S. DoD programs, other than the JSF Program, to the extent that such equipment and systems are needed to meet the JSF Air System requirements contained in the joint capabilities documentation referenced in paragraph 3.1 of this Section.

3.3 Sustainment

3.3.1 Sustainment efforts, including but not limited to manufacture of sustainment articles and provision of sustainment services, will be performed consistent with Section II (Objectives) to meet the Participants' operational readiness requirements by achieving the most cost-effective common sustainment of the JSF Air System. The general principles for the sustainment efforts are as follows:

3.3.1.1 Sustainment will be provided under ALGS, which will meet the Participants' requirements through a predominantly common

solution and will enable Participant-tailored solutions (Partially Common or unique), making appropriate use of existing infrastructure, to the extent practicable and cost-effective.

- 3.3.1.2 Responsibility for Contracting for sustainment efforts under ALGS will be in accordance with paragraph 6.1 of Section VI (Contracting Provisions).
- 3.3.1.3 The JSF Program Executive Officer (JSF PEO) will be responsible, as part of his responsibility to manage the Project in accordance with Section IV (Management (Organization and Responsibility)), for the management of ALGS (including delivery of ALGS articles and services under Contract), as well as coordination among production, sustainment and follow-on development activities conducted under Section III (Scope of Work). JSF Cooperative Project Personnel (JSF CPP) will be assigned to participate in ALGS planning and implementation efforts in accordance with Annex B (Management Structure).
- 3.3.1.4 ALGS will be achieved through an effective, affordable, and acceptable performance-based business model, which will use a continuous improvement approach.
- 3.3.1.5 The ALGS will employ a performance-based logistics (PBL) business approach, which will focus on buying and delivering outcomes, rather than specific products. The required outcomes will be established in individual performance-based arrangements (PBAs) for each Participant. Such PBAs will include performance metrics, support relationships (i.e., roles and responsibilities of the JSF Program Office and Participants) and the conditions for delivering sustainment articles and services.

- 3.3.1.6 ALGS will be implemented using a phased approach. The details regarding ALGS and its phases, as well as the PBA process, are included in Annex D (Sustainment).
- 3.3.2 Sustainment will include the following efforts:
 - 3.3.2.1 Provision of individual Participants' sustainment requirements for articles and services, by either Contracting or from the Participants' respective existing ALGS resources, related to the Autonomic Logistics (AL) domains identified at paragraphs 3.3.3.1 through 3.3.3.10 of this Section.
 - 3.3.2.2 Performance of the following activities for the Participants' joint benefit, which will be funded by all Participants:
 - 3.3.2.2.1 Common sustaining engineering services related to the AL domain in paragraph 3.3.3.9 of this Section.
 - 3.3.2.2.2 Common efforts for the expansion of Original Equipment Manufacturer (OEM) and other required repair capacity as determined through the industrial services management activities described in paragraph 3.3.3.10 of this Section.
- 3.3.3 ALGS efforts will encompass, but will not be limited to, efforts regarding the following logistic domains:
 - 3.3.3.1 Joint fleet management, which will provide coordination and facilitation for JSF Air System maintenance, JSF Air System configurations, planning of maintenance and configuration modifications, and making JSF Air Vehicle structural life and disposal recommendations. This activity will be done in conjunction with each Participant's management of its fleet.

- 3.3.3.2 Supply chain management, which will provide delivery and problem resolution for supply, inventory and warehousing, transportation, and distribution and related performance tracking.
- 3.3.3.3 Support equipment management, which will provide for the management of support equipment, optimize support equipment by location, maintain support equipment, provide configuration management, assist service personnel in support equipment maintenance, provide problem resolution, and aid in technology updating for support equipment.
- 3.3.3.4 Training system operations, which will provide for the delivery and management of training services and the delivery, maintenance, and management of associated articles.
- 3.3.3.5 Autonomic Logistics Information System (ALIS) support, which will provide the AL system Information infrastructure and decision support while maintaining the approved configuration data for the JSF Air System.
- 3.3.3.6 AL field operations, which will provide effective support to the Participants' warfighters in the operational environment, when and where it is needed, including technical support and all interfaces between the warfighters and the network of services. Under this domain, Participant priorities will be identified, Information flow will be monitored, and issues will be tracked and resolved.
- 3.3.3.7 AL business operations, which will implement the business aspects of AL and monitor support performance, including that performance under Contracts issued in accordance with paragraph 6.1 of Section VI (Contracting Provisions). It also includes support to government budget cycles, program

schedules, future strategic program planning, prioritization of Participants' needs, and program reviews.

- 3.3.3.8 ALGS operations development, which will ensure that the development of the ALGS operations through the life of the JSF Air System remains flexible to the evolving needs and requirements of the Participants.
- 3.3.3.9 Sustaining engineering, which will provide product support and field service engineering support. This includes engineering, problem/issue resolution, engineering investigations, mishap assistance, maintenance, modifications and technology upgrades of software and hardware, software maintenance, technical data, airworthiness, configuration management, definition of facility requirements, and low observable restoration.
- 3.3.3.10 Industrial services, which will provide the management activities required to coordinate fleet-wide JSF Air System depot level maintenance, modification and repair, and will include utilization of OEMs, regional support capabilities, and Participant-unique and Partially Common support facilities.
- 3.3.4 The JSF Program Office will establish and maintain a business continuity plan for sustainment support.
- 3.3.5 The sustainment activities under this MOU will be pursued primarily as efforts common to all Participants. However, some activities may be pursued as Partially Common efforts, or an effort unique to one Participant, in those cases in which a Participant's or Participants' requirements cannot be met through common sustainment activities. This will generally be determined by the business case analysis (BCA) process developed under the JSF SDD Framework MOU. However, Participants will have the option to make their own decisions. Under this process, BCAs will be conducted by a BCA team, consisting of the JSF

Program Office, Participants' representatives and industry. BCAs will be conducted following a spiral approach, with each spiral corresponding to milestone or policy decisions. Each BCA will utilize a repeatable process to describe specific task steps required for each spiral.

- 3.3.6 Planning efforts for an alternative sustainment approach will commence; under the direction of the JSF Executive Steering Board (JESB) as described in paragraph 4.4 of Section IV (Management (Organization and Responsibility)), if there are indications that the ALGS will not meet the Participants' requirements for satisfactory and affordable support of their JSF Air Systems. If required, implementation of an alternative sustainment approach will be described in a revision to Annex D (Sustainment), and an amendment to this MOU will be made in accordance with Section XIX (Amendment, Withdrawal, Termination, Entry into Effect, and Duration) as necessary.

3.4 Follow-on Development

- 3.4.1 The follow-on development work will be performed to keep the JSF Air System affordable, interoperable, operationally effective, operationally safe, and operationally suitable throughout its service life by adding upgrades (preferably common) in continuous increments, approximately every two years. These upgrades will address, but will not be limited to:
 - 3.4.1.1 Common requirements, as mutually determined by the Participants, and requirements specific to a Participant (or one of its military services), or to a variant of the JSF Air System.
 - 3.4.1.2 Corrections to operational deficiencies documented from in-service use and development test (DT) or operational test (OT) events.
 - 3.4.1.3 Capabilities, listed in the Operational Requirements Document (ORD), subsequent

documents, or JESB decisions that have not yet been implemented.

- 3.4.2 Other JSF Air System capability upgrades may occur that may not be specifically part of an increment of capability upgrade described in paragraph 3.4.1 of this Section. Examples of such other upgrades include electronic warfare or mission planning reprogramming, cryptographic material updates, quick reaction changes, or urgent operational requirements that may arise in a time period between major increment upgrades.
- 3.4.3 The activities in paragraphs 3.4.1 and 3.4.2 of this Section will be conducted primarily as efforts common to all Participants; however, some of those activities may be conducted as Partially Common efforts or as an effort unique to one Participant. The designation of efforts as common, Partially Common, or unique will be in accordance with the processes described in Annex E (Follow-on Development Process).
- 3.4.4 Urgent safety changes will be managed as part of the JSF sustaining engineering efforts as provided in Annex D (Sustainment).

3.5 Follow-on DT and Follow-on Operational Test and Evaluation (FOT&E)

- 3.5.1 Follow-on DT will be conducted in areas common to all Participants. Follow-on DT of Partially Common or Participant-unique requirements may be performed under this MOU, contingent upon availability of personnel, aircraft, test equipment, and scheduling of facility or range time.
- 3.5.2 FOT&E will be conducted in areas common to all Participants to refine the estimates made during initial operational test and evaluation (IOT&E); to complete any remaining IOT&E activity; to verify correction of IOT&E deficiencies; to evaluate significant follow-on development changes to design or employment; and to evaluate the JSF Air System as it evolves through follow-on development efforts to ensure it continues to meet operational needs and retains effectiveness in a substantially new

environment or against a new threat. FOT&E of Partially Common or Participant-unique requirements may be performed in any Participant's country under this MOU, contingent upon availability of personnel, aircraft, test equipment, and scheduling of facility or range time.

- 3.5.3 Personnel of the Participants will normally participate in the activities in paragraph 3.5.1 and 3.5.2 of this Section, subject to national disclosure policies.

3.6 Science and Technology (S&T) Development

- 3.6.1 S&T efforts will include, but will not be limited to, the following:

- 3.6.1.1 Identification of S&T efforts from the Participants' national programs that may be applicable and of benefit to the JSF Air System.
- 3.6.1.2 Submission of identified S&T efforts to the Requirements Working Group (RWG), referenced in Annex B (Management Structure), for consideration.

- 3.6.2 Any cooperation on S&T development efforts will be the subject of separate written arrangements by the Participants.

3.7 The cooperative efforts under this MOU will also include the exchange of notifications of safety-related events, including, but not limited to exchange of Privileged Safety Information in accordance with the procedures contained in the project security instruction (PSI), among the Participants in those cases in which an event related to the JSF Air System has resulted in or may result in an unsafe condition. Such notifications may be by Government message, electronic mail, or other written means as soon as possible.

3.8 Each Participant will demilitarize and dispose of its JSF Air Systems in accordance with mutually determined JSF demilitarization guidelines.

3.9 The Participants will use their best efforts to review expeditiously applications for export licenses related to the scope of work for this Project.

SECTION IV

MANAGEMENT (ORGANIZATION AND RESPONSIBILITY)

4.1 A JESB will be established and will exercise executive-level guidance and oversight for the Project. The JESB will provide a forum for discussions, consultations, and decisions on Project matters. Decisions of the JESB will be made by consensus, and those decisions affecting the execution of this MOU will be documented in serially numbered and dated decision memoranda or major decision memoranda, depending on the importance of the decision. Decisions on Partially Common and unique matters will be made by consensus of the JESB representatives for the U.S. DoD and the directly affected Participants.

4.2 The Service Acquisition Executives of the United States Department of the Air Force and the United States Department of the Navy will chair the JESB on an alternating basis, with an official of a non-U.S. DoD Participant serving as a co-chair. The JESB will also include one duly authorized representative appointed by each of the Participants. The JESB representatives (or their successors in the event of reorganization) will be as follows: Australia, Director General New Air Combat Capability; Canada, Assistant Chief of the Air Staff (ACAS); Denmark, Director Air Force Projects; Italy, Chief Programs Department of the National Armaments Directorate; the Netherlands, Director of Projects and Procurement; Norway, National Armaments Director; Turkey, Deputy Undersecretary for Defense Industries or Turkish Air Force Chief Plans and Principles; the United Kingdom, Capability Manager (Precision Attack); and the United States, the Service Acquisition Executives of the United States Department of the Air Force and the United States Department of the Navy on an alternating basis. Other personnel of the Participants, as appropriate, may attend JESB meetings. The JSF PEO will serve as the JESB's Executive Secretary. The U.S. SAEs and the JESB representatives of the Participants may delegate their respective authority regarding the functions in paragraph 4.4 of this Section. The JESB may establish subordinate working bodies as appropriate.

4.3 The JESB will normally meet semi-annually. Additional meetings may be held as mutually determined by the JESB. The JESB may also decide to conduct business in a virtual forum via e-mail, teleconference, or videoconference.

4.4 In exercising its executive-level guidance and oversight of the Project, the JESB will perform functions including, but not limited to:

- 4.4.1 Reviewing progress towards accomplishing Section II (Objectives) and Section III (Scope of Work).
- 4.4.2 Approving JSF PEO-recommended annual or multiyear Consolidated Procurement Requests (CPRs) for JSF Air System articles and services.
- 4.4.3 Approving JSF PEO-recommended ALGS configuration changes and providing strategic guidance to the ALGS process.
- 4.4.4 Approving JSF PEO-recommended JSF Air System configuration changes and providing strategic guidance to the follow-on development process.
- 4.4.5 Resolving issues brought forth by the JSF PEO, in accordance with paragraph 4.5.4 of this Section, concerning the solutions for impacts of production delays upon the deliveries of JSF Air Vehicles.
- 4.4.6 Conducting financial oversight of Project efforts to ensure compliance with the provisions of Section V (Financial Provisions).
- 4.4.7 Approving the JSF PEO-recommended Project Financial Management Procedures Document (FMPD), with the exception of bilateral annexes, and any changes thereto, in accordance with Section V (Financial Provisions).
- 4.4.8 Monitoring proposed Partially Common or unique efforts to be conducted by Participants through the JSF Program Office.
- 4.4.9 Addressing governmental oversight responsibilities concerning Project-related industrial matters raised by JESB representatives in accordance with Section VII (Industrial Participation).
- 4.4.10 Employing its best efforts to resolve, in consultation with the export control authorities of the Participants concerned, any export control issues raised by the JSF PEO in accordance with

paragraph 4.5.12 of this Section or raised by a Participant's JESB representative in accordance with paragraph 9.1.2.2 of Section IX (Disclosure and Use of Project Information).

- 4.4.11 Consulting on proposed Third Party sales and transfers in accordance with Section XIII (Third Party Sales and Transfers).
- 4.4.12 Providing oversight of Project efforts to ensure compliance with the provisions of Section XII (Security) and reviewing the PSI and the Classification Guide (CG) for the Project prior to the JSF PEO's forwarding them to the National Security Authorities/Designated Security Authorities (NSAs/DSAs) for approval.
- 4.4.13 Approving JSF PEO-recommended plans to manage and control the transfer of Project Equipment provided by any Participant to support the execution of the Project in accordance with Section VIII (Project Equipment and Jointly Acquired Equipment).
- 4.4.14 Approving JSF PEO-recommended plans for the disposal of Jointly Acquired Equipment under this MOU in accordance with Section VIII (Project Equipment and Jointly Acquired Equipment).
- 4.4.15 Consulting on any matters that affect the Project and resolve any issues brought forth by JESB representatives.
- 4.4.16 Reviewing and forwarding to the Participants for approval JESB representative-recommended amendments to this MOU in accordance with Section XIX (Amendment, Withdrawal, Termination, Entry Into Effect, and Duration).
- 4.4.17 Approving JSF PEO-recommended adjustments, as necessary, to reflect the changed requirements of the Participants, to the procurement quantities established in Annex A (Estimated JSF Air Vehicle Procurement Quantities), recognizing that each Participant retains the right to adjust its estimated procurement quantities on a yearly basis.

4.4.18 Approving JSF PEO-recommended amendments to Annex A (Estimated JSF Air Vehicle Procurement Quantities), consistent with paragraph 4.4.17 of this Section, Annex B (Management Structure), Annex D (Sustainment), Annex E (Follow-on Development Process), and Annex F (Estimated Allocation of Financial Cost Ceilings) of this MOU consistent with Section XIX (Amendment, Withdrawal, Termination, Entry Into Effect, and Duration) of this MOU.

4.4.19 Approving the JSF PEO-recommended JSF Program Office Integrated Project Teams Cooperative Project Personnel Personnel Description Document (IPT CPP PDD) referenced in paragraph 4.7 of this Section.

4.5 The JSF Program is directed by the U.S. DoD JSF PEO (or successor in the event of reorganization), who heads the JSF Program Office and who is responsible for managing the cost, schedule, performance requirements, and technical aspects of the JSF Program. The JSF PEO will manage the Project on behalf of the Participants in accordance with this MOU, and will promote international cooperation in the JSF Program Office in order to meet the requirements of this MOU. The JSF PEO will perform functions including, but not limited to:

- 4.5.1 Monitoring progress towards accomplishing Section II (Objectives) and Section III (Scope of Work), regularly advising the JESB on this progress, and apprising the JESB of significant issues and problems as they arise.
- 4.5.2 Recommending for JESB approval annual or multiyear CPRs for JSF Air System articles and services consistent with the Participants' requirements.
- 4.5.3 Monitoring affordability and Contractor performance and advising the JESB if any issues arise.
- 4.5.4 Addressing the impact of any production delays upon the deliveries of JSF Air Vehicles that have been placed under Contract for the Participants, and referring to the JESB any unresolved issues regarding the solutions for such impacts;
- 4.5.5 Recommending for JESB approval ALGS configuration changes.

- 4.5.6 Recommending for JESB approval JSF Air System configuration changes.
- 4.5.7 Managing certifications and airworthiness for the JSF Air System for production, sustainment, and follow-on development.
- 4.5.8 Managing the financial aspects of Project efforts to ensure compliance with the provisions of Section V (Financial Provisions).
- 4.5.9 Recommending for JESB approval the FMPD, with the exception of bilateral annexes, and any changes thereto in accordance with Section V (Financial Provisions), and implementing the JESB-approved FMPD.
- 4.5.10 Recommending, for approval of the JESB representatives of the U.S. DoD and the applicable non-U.S. DoD Participant, a bilateral FMPD annex for each of the non-U.S. DoD Participants, and any changes thereto, in accordance with Section V (Financial Provisions).
- 4.5.11 Advising the JESB of proposed Partially Common or unique efforts to be conducted by Participants through the JSF Program Office.
- 4.5.12 Monitoring export control arrangements required to implement this MOU and, if applicable, referring immediately to the JESB any export control issues that could adversely affect the implementation of this MOU.
- 4.5.13 Advising the JESB of any proposed U.S. DoD Third Party sales and transfers and monitoring all authorized sales and transfers, in accordance with Section XIII (Third Party Sales and Transfers).
- 4.5.14 Managing the security aspects of the Project, including forwarding the PSI and the CG to the JESB for review and then to the NSAs/DSAs for approval in accordance with Section XII (Security).
- 4.5.15 Recommending for JESB approval plans for managing and controlling the transfer of Project Equipment

provided by any Participant to support the execution of the Project in accordance with Section VIII (Project Equipment and Jointly Acquired Equipment).

- 4.5.16 Recommending for JESB approval plans for the disposal of Jointly Acquired Equipment under this MOU in accordance with Section VIII (Project Equipment and Jointly Acquired Equipment).
- 4.5.17 Resolving issues brought forth by the U.S. DoD Director, JSF International Directorate (JSF/ID) and referring to the JESB those issues that the JSF PEO cannot resolve.
- 4.5.18 Recommending to the JESB amendments to this MOU in accordance with Section XIX (Amendment, Withdrawal, Termination, Entry Into Effect, and Duration).
- 4.5.19 Reviewing annually and recommending to the JESB adjustments, if necessary, to the procurement quantities established in Annex A (Estimated JSF Air Vehicle Procurement Quantities).
- 4.5.20 Recommending to the JESB amendments to Annex A (Estimated JSF Air Vehicle Procurement Quantities), consistent with paragraph 4.5.19 of this Section, Annex B (Management Structure), Annex D (Sustainment), Annex E (Follow-on Development Process), and Annex F (Estimated Allocation of Financial Cost Ceilings) of this MOU consistent with Section XIX (Amendment, Withdrawal, Termination, Entry Into Effect, and Duration).
- 4.5.21 Recommending for JESB approval the JSF Program Office IPT CPP PDD described in paragraph 4.7 of this Section and maintaining oversight of the IPT CPP PDD.
- 4.5.22 Approving changes to the JSF ALGS Strategic Plan referenced in Annex D(Sustainment).

4.6 The Director, JSF/ID, assisted by National Deputies of the other Participants referenced in paragraph 4.7 of this Section, will be responsible for:

- 4.6.1 Managing the day-to-day administration of this MOU.
- 4.6.2 Preparing and submitting to the JSF PEO the Project FMPD, with the exception of bilateral annexes, and any changes thereto for JESB approval.
- 4.6.3 Preparing and submitting to the JSF PEO, for the approval of the JESB representatives of the U.S. DoD and the applicable non-U.S. DoD Participant, a bilateral FMPD annex for each of the non-U.S. DoD Participants, and any changes thereto, in accordance with Section V (Financial Provisions).
- 4.6.4 Coordinating the financial aspects of the Project in accordance with Section V (Financial Provisions) and the FMPD.
- 4.6.5 Preparing and submitting to the JSF PEO the JSF Program Office IPT CPP PDD for the JESB's approval.
- 4.6.6 Developing and submitting to the JSF PEO amendments to this MOU and its Annexes for recommendation to the JESB.
- 4.6.7 Developing plans to manage and control the transfer of Project Equipment provided by a Participant in accordance with Section VIII (Project Equipment and Jointly Acquired Equipment), submitting them to the JSF PEO for recommendation to the JESB, and implementing the JESB-approved plans.
- 4.6.8 Developing plans for the disposal of Jointly Acquired Equipment under this MOU in accordance with Section VIII (Project Equipment and Jointly Acquired Equipment), submitting them to the JSF PEO for recommendation to the JESB, and implementing the JESB-approved plans.
- 4.6.9 Developing and forwarding to the JSF PEO a PSI and a CG for the Project within three months after MOU signature, and implementing them upon final approval.
- 4.6.10 Providing reports to the JSF PEO as required.
- 4.6.11 Referring issues to the JSF PEO that cannot be resolved by the Director, JSF/ID.

4.7 Each non-U.S. DoD Participant will provide a National Deputy and JSF CPP, in accordance with Annex B (Management Structure), who will be assigned to the JSF Program Office or Project field activities. Each National Deputy's primary responsibility will be to serve as the national representative for the National Deputy's Participant. Specific National Deputy responsibilities are identified in paragraph 4.8 of this Section. Specific IPT responsibilities for non-U.S. DoD personnel will be identified in the JSF Program Office IPT CPP PDD.

4.8 Each National Deputy will be responsible for:

- 4.8.1 Supporting the Director, JSF/ID in the day-to-day administrative management of this MOU, to include oversight of the JSF PSFD MOU CPP of the cognizant Participant.
- 4.8.2 Providing day-to-day representation of the cognizant Participant within the JSF Program Office on all matters related to the Project.
- 4.8.3 Assisting the Director, JSF/ID in developing the FMPD, PSI, and CG, and IPT CPP PDD.
- 4.8.4 Performing other tasks, as may be assigned by the Director, JSF/ID or the National Deputy's respective JESB representative.

4.9 U.S. DoD personnel may serve as JSF CPP in activities of the non-U.S. DoD Participants; assignments of such personnel will be reflected in an amendment to Annex B (Management Structure) as the need for such assignments arises. Annex C (Cooperative Project Personnel) establishes provisions for the general conduct of all personnel of the Participants who will serve as JSF CPP.

4.10 The Participants will have representation in JSF management groups, both external and internal to the JSF Program Office, as depicted in Annex B (Management Structure).

SECTION V

FINANCIAL PROVISIONS

5.1 The estimate for the total shared costs for the Participants' cooperative efforts under this MOU is 21.876 billion Then Year (TY) U.S. Dollars. Each Participant's maximum contribution to the total shared costs of this MOU is reflected in Table 5-1. In no event will any of these maximum contribution amounts be increased without an amendment to this MOU. However, if a Participant's expenditures reach its maximum contribution amount, the provisions of paragraph 19.5 of Section XIX (Amendment, Withdrawal, Termination, Entry into Effect, and Duration) will apply.

Table 5-1 (In TY U.S. Dollars)

Participant	Maximum Contribution
Australia	\$0.690B
Canada	\$0.551B
Denmark	\$0.33B
Italy	\$0.904B
The Netherlands	\$0.586B
Norway	\$0.33B
Turkey	\$0.690B
United Kingdom	\$0.952B
United States	\$16.843B

5.2 The costs of the cooperative efforts under this MOU will not exceed the following Financial Cost Ceilings:

- 5.2.1 A Financial Cost Ceiling of 7.303 billion TY U.S. Dollars for shared production non-recurring costs (including, but not limited to, production test and tooling equipment, and production Line Shutdown) and the shared costs of Project overhead and administration. The estimated allocation of the costs for this Financial Cost Ceiling among the Participants is depicted in Annex F (Estimated Allocation of Financial Cost Ceilings).
- 5.2.2 A Financial Cost Ceiling of 1.323 billion TY U.S. Dollars for the shared non-recurring costs of sustainment. The estimated allocation of the costs for this Financial Cost Ceiling among the

Participants is depicted in Annex F (Estimated Allocation of Financial Cost Ceilings).

5.2.3 A Financial Cost Ceiling of 13.250 billion TY U.S. Dollars for shared follow-on development non-recurring costs. The estimated allocation of the costs for this Financial Cost Ceiling among the Participants is depicted in Annex F (Estimated Allocation of Financial Cost Ceilings).

5.2.3.1 Each Participant will contribute to the shared non-recurring costs of follow-on development incurred from the beginning of the follow-on development efforts to the end of that Participant's production run.

5.2.3.2 Each Participant will also contribute to the shared non-recurring costs of follow-on development efforts incurred after its production run, if it wishes to receive Information generated in the performance of such follow-on development efforts or to purchase a retrofit kit or equipment that results from those efforts.

5.3 The Financial Cost Ceilings in paragraph 5.2 of this Section may be changed only by amendment to this MOU.

5.4 The U.S. dollar will be the reference currency for the Project, and the Project fiscal year will be the U.S. fiscal year (1 October - 30 September).

5.5 Each Participant will contribute its equitable share of the full Financial Costs and Non-financial Costs of the Project, including overhead costs, administrative costs, and, in accordance with Section XIV (Liability and Claims), costs of claims, and will receive an equitable share of the results of the Project, as specified in this MOU.

5.6 The Financial Costs for common production, sustainment, and follow-on development efforts will be shared among the Participants in accordance with the proportion of their individual JSF Air Vehicles to the total JSF Air Vehicles of all Participants participating in those efforts. This requirement is reflected in the Composite Share Ratio (CSR) formula, $S = (A/B)C$, where:

- 5.6.1 "S" represents the financial contribution by an individual Participant to the cooperative effort;
- 5.6.2 "A" represents the individual Participant's estimated JSF Air Vehicle procurement quantities. The values for "A" are identified in Annex A (Estimated JSF Air Vehicle Procurement Quantities), and will be adjusted by the JESB annually, if necessary, to reflect changes in the Participants' estimated JSF Air Vehicle procurement quantities, in accordance with paragraph 4.4.17 of Section IV (Management (Organization and Responsibility)). The impact of any such adjustments to the JSF Air Vehicle procurement quantities upon the financial contributions determined by this formula will be prospective only;
- 5.6.3 "B" represents the sum of the individual "A" values of the Participants participating in the cooperative effort; and
- 5.6.4 "C" represents the total Financial Costs of the cooperative effort.

5.7 The CSR formula will also be used to calculate non-recurring cost shares for Participants participating in Partially Common production, sustainment, and follow-on development efforts that are within the scope of this MOU. In such cases, the values for "B" in paragraph 5.6.3 of this Section will represent the sum of the individual "A" values of the Participants participating in a Partially Common effort. Except as provided in paragraph 9.1.5 of Section IX (Disclosure and Use of Project Information), if a Participant who does not join in a Partially Common effort but who subsequently decides that it wishes to receive Information generated in the performance of that effort or to acquire any item that results from that effort, that Participant will be treated as a Participant participating in that effort, for the purposes of cost sharing. Accordingly, such Participant will contribute its share of the costs of that effort in accordance with the formula set forth in this paragraph.

5.8 The non-recurring costs for production, sustainment, and follow-on development efforts that are incurred to satisfy the unique requirements of a Participant will be paid by that Participant. Except as provided in paragraph 9.1.5 of Section IX (Disclosure and Use of Project Information) and paragraph

2.1.3 of Annex D (Sustainment), if another Participant subsequently wishes to receive Information generated in the performance of such an effort, or to acquire any item that results from that effort, that Participant will be treated as a Participant participating in those efforts for the purposes of cost sharing. Accordingly, that Participant will contribute its share of the costs of those efforts in accordance with the formula in paragraph 5.7 of this Section.

5.9 Those recurring costs associated with the provision of JSF Air Systems and related articles and services intended solely and exclusively for use by a Participant will be paid by that Participant.

5.10 Participation in the Project will also include, but not be limited to, a Non-financial Cost contribution of personnel assigned to the JSF Program Office, U.S. DoD field activities, and facilities of non-U.S. DoD Participants. The Non-financial Cost contribution of the U.S. DoD Participant will include the JSF PEO, the Director, JSF/ID, and any JSF CPP of the U.S. DoD assigned to the facilities of non-U.S. DoD Participants. The Non-financial Cost contributions of the other Participants will include their National Deputies and JSF CPPs.

5.11 In addition to the shared costs of Project administration referenced in paragraph 5.2.1 of this Section, the Participants will bear the cost of personnel who are provided as non-financial contributions in accordance with paragraph 5.10 of this Section, as follows:

5.11.1 The U.S. DoD will bear the costs of all pay and allowances of the JSF PEO and the Director, JSF/ID.

5.11.2 Each Parent Participant will bear the following JSF CPP-related costs:

5.11.2.1 All pay and allowances of its JSF CPP assigned to the facilities of another Participant.

5.11.2.2 Transportation of its JSF CPP, JSF CPP dependents, and their personal property to the location of the facilities of another Participant prior to commencement of the JSF CPP assignment, and return transportation of the foregoing from this location upon

completion or termination of the JSF CPP assignment.

- 5.11.2.3 Compensation for loss of, or damage to, the personal property of its JSF CPP or JSF CPP dependents, subject to the laws and regulations of the Parent Participant's Government.

5.12 The following costs will be borne entirely by the Participant incurring the costs or on whose behalf the costs are incurred:

- 5.12.1 Costs associated with national representation at meetings by personnel not assigned, as part of this Project, to the JSF Program Office, U.S. DoD field activities, or facilities of non-U.S. DoD Participants.

- 5.12.2 Costs associated with any unique national requirements identified by a Participant not included under paragraphs 5.8 and 5.9 of this Section.

- 5.12.3 Any costs that are outside the scope of this MOU.

5.13 The JSF PEO will be responsible for establishing the detailed financial management procedures under which the Project will operate. These procedures will include cost and performance tracking provisions and any measures designed to minimize the currency exchange rate risk upon the costs of the Participants. These procedures, which must accord with the national accounting and audit requirements of the Participants, will be detailed in a FMPD prepared by the Director, JSF/ID and subject to the approval of the JESB. Each Participant will fund the Project in accordance with the estimated financial schedule of financial contributions and processes contained in the FMPD, which will be consistent with the funding requirements of paragraph 5.16 of this Section. The FMPD will reflect that each Participant will pay its CSR share of production Line Shutdown costs at the time required to make contractual payment of the Line Shutdown, except that if a Participant withdraws from the MOU prior to Line Shutdown, such payment will be made upon withdrawal. However, if a Participant withdraws prior to any of its Air Vehicle requirements being placed on Contract, that Participant will not be responsible for paying any Line Shutdown costs.

5.14 The Director, JSF/ID will prepare a bilateral annex to the FMPD for each of the non-U.S. DoD Participants, which will be submitted, via the JSF PEO, for approval by the JESB representatives of the U.S. DoD and the applicable non-U.S. DoD Participant. Each annex will include an estimated financial schedule for the payment of the costs of the applicable non-U.S. Participant described in paragraphs 5.7, 5.8, 5.9, and 5.12.2 of this Section; this schedule will be consistent with the funding requirements of paragraph 5.16 of this Section. Each annex will also include those provisions necessary to satisfy the unique financial management procedures requirements of the applicable non-U.S. Participant.

5.15 A Participant may provide Non-financial Cost contributions to the Project, such as in-kind articles and services, instead of Financial Cost contributions not to exceed a cumulative amount of 50 million TY U.S. dollars, as mutually determined by the JESB. Any such Non-financial Cost contributions by a Participant will be reflected in an approved change to the FMPD. The FMPD change will also reflect that the Participant's Financial Cost contributions will be decreased by an amount that the JESB mutually determines to be the value of the Non-financial Cost contribution.

5.16 The Participants recognize that in fulfilling their Contracting responsibilities under Section VI (Contracting Provisions), it may become necessary for a Contracting Participant to incur contractual or other obligations for the benefit of the Participants prior to the receipt of the other Participants' funds. In the event that a Contracting Participant incurs such obligations, the other Participants so benefited will make such funds available in such amounts and at such times as may be required by the Contracts or other obligations and will pay any damages and costs that may accrue from the performance of or cancellation of the Contracts or other obligations in advance of the time such payments, damages, or costs are due.

5.17 A Participant will promptly notify the other Participants if available funds are not adequate to fulfill its responsibilities under this MOU. If a Participant notifies the other Participants that it is terminating or reducing its funding for this Project, the JESB will immediately consult to decide upon the appropriate course of action with a view toward continuation on a modified basis.

5.18 The Participants acknowledge the importance of sound financial management practices and the need to comply with the audit requirements of their respective Governments. Accordingly, each Participant will, to the maximum extent permitted within its national laws, regulations, and disclosure policies, provide to the other Participants or the National Audit Institutions of the Participants (as applicable) the Information and assistance described in paragraphs 5.19 through 5.21 of this Section.

5.19 Each Contracting Participant will be responsible for the audit of the procurement activities for which it is responsible under the Project in accordance with its national practices. The Contracting Participant will use its best efforts to perform any audits requested by another Participant. In the event that an audit of procurement activities requested by another Participant cannot be performed by the Contracting Participant, then the requesting Participant may request to perform an audit itself. Each Participant's reports of audits will be promptly made available to the other Participants.

5.20 The U.S. DoD will be responsible for the internal audit regarding administration of the other Participants' Project funds in accordance with U.S. national practices. The U.S. DoD will promptly make audit reports of such funds available to the other Participants. Upon the mutual consent of the U.S. DoD and another Participant, that Participant or its National Audit Institution auditors will be permitted to assist the U.S. DoD on any audit elements required to satisfactorily perform the audit. In addition, if the Participant or its National Audit Institution auditors need to obtain or to inspect specific Project data in order to fulfill their national obligations, the U.S. DoD will arrange for access to such specific data at mutually determined times and locations.

5.21 In the event external audits concerning the Project are conducted by the National Audit Institutions of the Participants' nations, such reports will be provided by the applicable Participant to the JESB representative of the other Participants. The Director, JSF/ID, and the National Deputies will apprise each other as soon as possible of external audits concerning the Project by the National Audit Institutions of the Participants' nations.

SECTION VI

CONTRACTING PROVISIONS

6.1 The U.S. DoD will be primarily responsible for Contracting for this Project in accordance with U.S. Contracting laws, regulations and procedures. However, the JSF PEO may request that a Participant other than the U.S. DoD issue Contracts for the Project in accordance with that Participant's national Contracting laws, regulations, and procedures. The JSF PEO will ensure that Contracts issued on behalf of the Participants are in accordance with this MOU. The Contracting Officer for each Contract is the exclusive source for providing contractual direction and instructions to Contractors, and is responsible for ensuring that such directions and instructions are in accordance with the terms and conditions of the Contract. The Contracting Officer will, when it facilitates satisfying the objectives of this MOU, seek waivers of national procurement regulations, procedures, and practices.

6.2 Contracting for the Project will include Contracting for the common, Partially Common, and unique requirements of the Participants for their JSF Air Systems. Each Participant will delineate its national requirements for production, sustainment, and follow-on development of its JSF Air Systems in individual PPRs. To initiate the procurement of JSF Air System articles and services, the Participants will submit PPRs to the JSF Program Office in accordance with procedures proposed by the PEO and approved by the JESB, which will include the timing, format, and acceptance procedures for such requests. PPRs for propulsion systems will be submitted separately from PPRs for other JSF Air System articles and services. The following principles will apply to PPRs:

- 6.2.1 PPRs may contain technical requirements, statements of work, and Contract terms and conditions that are unique to a Participant. Unique terms and conditions will be consistent with the Contracting Agency's national laws and (unless a waiver is obtained) regulations. Unique terms and condition requests may include designation of Contractors or subcontractors in order to satisfy the requirements of the Participant submitting the PPR. The costs of a Participant's unique technical requirements and statements of work (to include associated proposal preparation costs) or a Participant's

unique Contract terms and conditions will be funded by that Participant.

6.2.2 The Participants may designate the F135, the F136, or both in their PPRs in such quantities and in accordance with such delivery schedules as they require.

6.2.2.1 If a Participant makes such a designation in its PPR, that Participant's personnel may not thereafter participate in the procurement activities described in paragraphs 6.3, 6.6, and 6.7 of this Section as to a Contract competition between the Contractors of the F135 and the F136 pertinent to that PPR. However, the Participant's personnel may review the model Contract included in the Request for Proposals (RFP) released to the Contractors for that competition in order to verify that the Contract will reflect the Participant's requirements as specified in its applicable PPR.

6.2.2.2 If a Participant does not designate the F135 or the F136 for Contracts that will be competed, or if Contracts containing the F135 or the F136 requirements of a Participant are not competitively awarded, that Participant's personnel may participate in post-PPR submission procurement activities for such Contracts in accordance with paragraphs 6.3, 6.6, and 6.7 of this Section.

6.2.3 A Participant's PBA will document JSF Air System performance based metrics, support relationships (i.e., roles and responsibilities of the JSF Program Office and Participants), and conditions for delivering sustainment articles and services applicable to unique, common, and Partially Common requirements. A Participant's PPR for sustainment articles and services will be consistent with the requirements of that Participant's PBA. Additional Participant sustainment requirements, such as spares contingency support packages and the

establishment of training centers, will be delineated as separate requirements within the PPR.

- 6.2.4 In order to achieve economy of scale efficiencies and to ensure that capacity and capability exists to meet the Participants' joint requirements, the JSF Program Office will combine all the requirements reflected in the PPRs into CPRs to the extent feasible.
- 6.2.5 If, at the time of PPR consolidation, the JSF Program Office determines that all of the PPR requirements of the Participants cannot be met, then priority among the Participants for JSF Air System procurement requirements will be determined by their contribution shares to the JSF SDD Framework MOU, unless otherwise decided by the JESB. In all cases the Participants' JSF Air System procurement requirements will have priority over procurement requirements of Third Parties.
- 6.2.6 The requirements and terms and conditions contained in the JESB-approved CPRs (or, in the event a CPR is not generated, the PPRs mutually determined by the Contracting Agency and the applicable Participant to be acceptable) will be the subject of the solicitation package issued to Contractors in an RFP.

6.3 The personnel of the Participants on whose behalf a Contract will be awarded or modified may participate in the procurement planning process leading to the RFP. This process may include planning procurement actions involving requirement definitions (including development of statements of work and specifications), acceptance procedures, tentative schedule, establishment of milestones, procurement strategies, and Contract development (including terms and conditions).

6.4 The Contracting Officer will endeavor to establish Contract sustainment terms and conditions that provide incentives for the Contractor to meet the threshold sustainment requirements of all Participants rather than the threshold sustainment requirements of an individual Participant.

6.5 The Contracting Officer will use best efforts to negotiate for the procurement of requirements contained in the RFP. A Participant will be consulted in the event that the Contracting

Officer is unable to obtain that Participant's requirements as delineated in the RFP. In such event, a Participant may have its requirements deleted from the proposed RFP or may request modification of its requirements as stated in the RFP. The modified or deleted requirements will be documented in a revision to the Participant's PPR, and the Contracting Officer will use best efforts to negotiate the inclusion of the modified requirements.

6.6 The personnel of the Participants on whose behalf a Contract will be awarded or modified will be permitted to participate in proposal evaluations. They also will be permitted to participate in Contract negotiations at the discretion of the Contracting Officer or Contracting Agency, depending upon the national laws and regulations governing the Contracting Agency. To facilitate review of a proposal for a requirement of a Participant, the Participant on whose behalf a Contract will be awarded or modified will be permitted to request cost and pricing data. The Participant will receive such cost and pricing data, unless it is proprietary to a Contractor or subcontractor. If requested, the Contracting Officer will use best efforts to obtain the written consent of that Contractor or subcontractor to provide such proprietary data to the Participant.

6.7 Prior to Contract award, the personnel of the Participants on whose behalf a Contract will be awarded will be permitted to review the proposed Contract. Such personnel will be permitted to also review proposed modifications to the Contract. The Contracting Participant will not award such a Contract or award such a modification without the prior approval of the benefiting Participant to the amount that may become payable by that Participant under the Contract or modified Contract. The benefiting Participant will have ten of the benefiting Participant's working days after that Participant's receipt of the proposed Contract or proposed modification to give its approval, and if such approval has not been received within the designated period, the benefiting Participant may, at the discretion of the Contracting Participant, be considered to have withdrawn its requirements from the Contract or modification.

6.8 Contracting Officers will insert into prospective Contracts (and require its Contractors to insert in subcontracts) provisions to satisfy the requirements of this MOU, including Section VII (Industrial Participation), Section IX (Disclosure and Use of Project Information), Section X (Controlled Unclassified Information), Section XII (Security),

Section XIII (Third Party Sales and Transfers), and Section XIX (Amendment, Withdrawal, Termination, Entry into Effect, and Duration), including the export control provisions in accordance with this MOU, in particular paragraphs 6.10 and 6.11 of this Section. During the Contracting process, Contracting Officers will advise Prospective Contractors of their responsibility to immediately notify the Contracting Agency, before Contract award, if they are subject to any license or agreement that will restrict their freedom to disclose Information or permit its use. Contracting Officers will also advise Prospective Contractors to employ their best efforts not to enter into any new agreement or arrangement that will result in restrictions.

6.9 Contracting Officers will negotiate to obtain the rights to use and disclose Project Information required by Section IX (Disclosure and Use of Project Information). In the event the Contracting Officer is unable to secure adequate rights to use and disclose Project Information as required by Section IX (Disclosure and Use of Project Information), or is notified by Contractors or Prospective Contractors of any restrictions on the disclosure and use of Information, the matter will be referred to the JESB for resolution.

6.10 Each Participant will legally bind its Contractors to a requirement that the Contractor will not retransfer or otherwise use export-controlled Information furnished by another Participant for any purpose other than the purposes authorized under this MOU. The Contractor will also be legally bound not to retransfer the export-controlled Information to another Contractor or subcontractor unless that Contractor or subcontractor has been legally bound to limit use of the Information to the purposes authorized under this MOU. Export-controlled Information furnished by one Participant under this MOU may only be retransferred by another Participant to its Contractors if the legal arrangements required by this paragraph have been established.

6.11 Each Participant will legally bind its Prospective Contractors to a requirement that the Prospective Contractor will not retransfer or otherwise use export-controlled Information furnished by another Participant for any purpose other than responding to a solicitation issued in furtherance of the purposes authorized under this MOU. Prospective Contractors will not be authorized use for any other purpose if they are not awarded a Contract. The Prospective Contractors will also be legally bound not to retransfer the export-controlled Information to a prospective subcontractor unless that

prospective subcontractor has been legally bound to limit use of the export-controlled Information for the purpose of responding to the solicitation. Export-controlled Information furnished by one Participant under this MOU may only be retransferred by another Participant to its Prospective Contractors if the legal arrangements required by this paragraph have been established. Upon request by the furnishing Participant, the receiving Participant will identify its Prospective Contractors and prospective subcontractors receiving such export-controlled Information.

6.12 The Contracting Agency will, upon request from a Participant on whose behalf a Contract has been awarded, terminate the portion of the Contract relating to the requirements of that Participant. The Participant requesting such termination will be responsible for all Contract costs for such termination that would not have been incurred but for its request to terminate.

6.13 The personnel of the Participants on whose behalf a Contract has been awarded may participate in Contract administration as determined in writing by the Contracting Officer. In addition, such personnel may participate in acceptance procedures for major articles acquired on their behalf, subject to national disclosure policies. Designation of major articles will be made during the procurement planning process in accordance with paragraph 6.3.

6.14 During Contract administration, the JSF PEO will ensure that he is immediately advised of any cost growth, schedule change, or performance problems (including problems identified by a Participant) of any Contractor, as well as the intended measures for managing and resolving such issues, including any contemplated Contract terminations, in the best interest of all affected Participants. The JSF PEO will keep the National Deputies advised of the foregoing Information and will advise the JESB of all major issues (including proposed Contract terminations). The Contracting Officer will act in the best interests of all affected Participants in Contract administration decisions.

6.15 Participants on whose behalf a Contract has been awarded may provide written award or incentive fee recommendations to the award fee board, in accordance with the applicable Contracting Agency's award or incentive fee process and procedures, regarding the level of Contractor achievement related to their articles and services that have been placed on

Contract on an incentive or award fee basis. Representatives of **the Participants** may be members of an award fee board when the **award fee** under discussion only addresses the unique requirements of the applicable Participants. Participants may observe award or incentive fee deliberations for Contracts that relate to their common or Partially Common requirements.

6.16 When contracting on behalf of the other Participants, a Contracting Participant will protect the interests of the other Participants. The Contracting Participant will investigate, in a timely manner, concerns that a Contractor is not meeting contractual requirements, and, upon verification of the validity of such concerns, will pursue contractual remedies and utilize Contract disputes processes to the same extent as that Contracting Participant would in protecting its own interests. The Contracting Participant will keep the affected Participants informed during this process and will take their views into full consideration.

SECTION VII

INDUSTRIAL PARTICIPATION

7.1 The Participants, through their Contracting Agencies, will require their Contractors to select subcontractors (which term includes subcontractors from all of the Participants' nations) on a competitive, Best Value basis to the maximum practical extent consistent with the objectives and requirements of the Contracts and this MOU.

7.2 Contracts for the Project will require, subject to the principles in paragraph 7.1 of this Section, that Contractors and subcontractors will actively pursue Best Value solutions with the Participants' industries for the production, sustainment, and follow-on development requirements.

7.3 The Participants acknowledge that, subject to the submission of Best Value offers, industries that are in the nations of Participants procuring JSF Air Systems under this MOU and that were awarded SDD subcontracts will normally also be awarded subcontracts for low rate initial production and full rate production work, as well as for related sustainment and follow-on development work.

7.4 The Participants will require their Contractors to make good faith efforts, when conducting subcontracting competitions, to furnish timely notification of such competitions to qualified sources in each of the Participant's nations that are known to the Contractors. The Participants will also require their Contractors to implement a transparent industrial participation process as well as visibility into the results of subcontracting competitions upon request.

7.5 In order to ensure that industrial opportunities are open to industry in all of the Participants' nations, the Participants will use their best efforts and encourage their Contractors to use their best efforts, to address export control issues in a timely manner that promotes the maximum degree of industrial cooperation among the Participants' nations, consistent with their national laws and regulations.

7.6 No requirement will be imposed by any Participant for work sharing or other industrial or commercial compensation in connection with this MOU that is not in accordance with this

MOU. However, this will not prevent the Participants' industries from establishing arrangements with JSF Contractors regarding work outside the scope of work of this MOU.

SECTION VIII

PROJECT EQUIPMENT AND JOINTLY ACQUIRED EQUIPMENT

8.1 Each Participant may provide Project Equipment identified as being necessary for executing this MOU to another Participant. Project Equipment will remain the property of the providing Participant. A list of all Project Equipment provided by one Participant to another Participant will be developed and maintained by the JSF Program Office.

8.2 The receiving Participant will maintain any such Project Equipment in good order, repair, and operable condition. Unless the providing Participant has authorized the Project Equipment to be expended or otherwise consumed without reimbursement to the providing Participant, the receiving Participant will return the Project Equipment to the providing Participant in as good condition as received, normal wear and tear excepted, or return the Project Equipment and pay the cost to restore it. If the Project Equipment is damaged beyond economical repair, the receiving Participant will return the Project Equipment to the providing Participant (unless otherwise specified in writing by the providing Participant) and pay the replacement value, which will be computed pursuant to the providing Participant's national laws and regulations. If the Project Equipment is lost while in the custody of the receiving Participant, the receiving Participant will issue a certificate of loss to the providing Participant and pay the replacement value.

8.3 The providing Participant will deliver Project Equipment to the receiving Participant at a mutually determined location. Possession of the Project Equipment will pass from the providing Participant to the receiving Participant at the time of receipt of the Project Equipment. Any further transportation is the responsibility of the receiving Participant.

8.4 All Project Equipment that is transferred will be used by the receiving Participant only for the purposes of carrying out this MOU, unless otherwise consented to in writing by the providing Participant. In addition, in accordance with Section XIII (Third Party Sales and Transfers) Project Equipment will not be re-transferred to a Third Party without the prior written consent of the providing Participant.

8.5 Project Equipment transferred to one Participant under this MOU will be returned to the providing Participant prior to the termination or expiration of this MOU.

8.6 Any Jointly Acquired Equipment will be disposed of during this Project or when the Project ceases, as mutually determined by the JESB representatives of the directly affected Participants.

8.7 Subject to the mutual determination of the U.S. DoD and a non-U.S. DoD Participant, legal title and possession of tooling that is funded solely by one non-U.S. DoD Participant for its unique requirements will be transferred to that Participant.

SECTION IX

DISCLOSURE AND USE OF PROJECT INFORMATION

9.1 General

- 9.1.1 The Participants recognize that successful collaboration depends on exchange of Information necessary for carrying out this Project. The Participants intend to acquire and exchange sufficient Project Information and rights to use such Information to enable the production, sustainment, and follow-on development of the three-variant family of the JSF Air System. The nature and amount of Project Information to be acquired will be consistent with the objectives stated in Section II (Objectives) and Section III (Scope of Work).
- 9.1.2 The following export control provisions will apply to the transfer of Project Information:
 - 9.1.2.1 Transfer of Project Information will be consistent with the furnishing Participant's applicable export control laws and regulations. Unless otherwise restricted by duly authorized officials of the furnishing Participant at the time of transfer to another Participant, all export-controlled Information furnished by that Participant to another Participant may be retransferred to the other Participant's Contractors, subcontractors, Prospective Contractors, and prospective subcontractors, subject to the requirements of paragraphs 6.10 and 6.11 of Section VI (Contracting Provisions). Export-controlled Information may be furnished by Contractors, subcontractors, Prospective Contractors, and prospective subcontractors of one Participant's nation to the Contractors, subcontractors, Prospective Contractors, and prospective subcontractors of another Participant's nation pursuant to this MOU subject to the conditions established in licenses or other approvals issued by the Government of the

former Participant in accordance with its applicable export control laws and regulations.

- 9.1.2.2 If a Participant finds it necessary to exercise a restriction on the retransfer of export-controlled Information as set out in paragraph 9.1.2.1 of Section IX (Disclosure and Use of Project Information), it will promptly inform the other Participants. If a restriction is then exercised and an affected Participant objects, that Participant's JESB representative will promptly notify the other Participants' JESB representatives and they will immediately consult in order to discuss ways to resolve such issues or mitigate any adverse effects.
- 9.1.2.3 Notwithstanding the provisions of this MOU that relate to the protection of Information, particularly Section IX (Disclosure and Use of Project Information), Section X (Controlled Unclassified Information), Section XII (Security), and Section XIII (Third Party Sales and Transfers), the specific export control provisions set out in Section VI (Contracting Provisions) and this Section will not apply to transfers of Information amongst non-U.S. DoD Participants where such exchanges do not include U.S. export-controlled Information.
- 9.1.3 Notwithstanding any other provision in this section, disclosure of Project Information will only be in accordance with the Participants' respective national disclosure policies. The Participants will use their best efforts to maximize disclosure of Project Information under this MOU within national disclosure policies.
- 9.1.4 The Participants will use their best efforts to ensure that, within the constraints of national disclosure policies, each Participant will be able to access and use (or have used on its behalf), without charge, for JSF Purposes the common sustainment Information in ALIS that is needed by

that Participant's operators and training and maintenance personnel for the support of that Participant's JSF Air Systems. Accordingly, the Participants will use their best efforts to avoid including in ALIS any such Information that is subject to Intellectual Property use rights restrictions, when those restrictions would limit the ALIS access and use rights otherwise intended to be provided to the Participants pursuant to this paragraph, to the extent that such efforts do not adversely affect the functionality of ALIS.

9.1.5 Notwithstanding paragraphs 9.2, 9.4, and 9.5 of this Section, and except as provided in paragraph 2.1.3 of Annex D (Sustainment), if an effort under this MOU is for the unique requirements of a Participant, or for Partially Common requirements, the following will apply:

9.1.5.1 Subject to paragraph 9.1.5.3 of this Section, only the Participant or Participants funding that effort will receive the Project Foreground Information generated in that effort. Such a Participant or Participants may use or have used such Project Foreground Information for JSF Purposes, subject to any greater rights that a Participant or Participants may have as a result of that Participant's or Participants' generation of that Information, or as a result of that Participant's or Participants' placing Contracts for that Information that provide the Contracting Participant with greater rights.

9.1.5.2 Subject to paragraph 9.1.5.3 of this Section, only the Participant or Participants funding that effort will receive the Contractor Project Background Information delivered under Contracts awarded for that effort. Such a Participant or Participants may use or have used such Information for JSF Purposes, subject to any restrictions by holders of Intellectual Property rights.

- 9.1.5.3 In order to carry out the Project effectively (to include maintaining configuration control and interoperability), the U.S. DoD will receive, and may use or have used, for Project purposes, all Project Foreground Information generated under this MOU for the unique or Partially Common requirements of any other Participant or Participants. It will also receive all Contractor Project Background Information delivered under Contracts awarded for the unique or Partially Common requirements of any other Participant or Participants, and may use or have used that Information for Project purposes, subject to any restrictions by holders of Intellectual Property rights. Participants other than the U.S. DoD and the Participants for whom the Information described in this paragraph was generated or delivered may, upon request, receive and use such Information for the purposes of interoperability, Project management, and configuration control, subject to the prior written consent of the U.S. DoD and the Participants for whom the Information was generated or delivered.
- 9.1.6 The Participants recognize that the majority of the Project Foreground Information will be provided electronically. The Participants will have timely access to such electronic data to the extent consistent with paragraph 9.1.3 of this Section.
- 9.1.7 A Participant may use the following Information provided to it under the JSF SDD Framework MOU for the following purposes under this JSF PSFD MOU: Government Project Foreground Information and Contractor Project Foreground Information, for Project purposes; and Contractor Project Background Information delivered under Contracts awarded under the JSF SDD Framework MOU, for Project purposes, subject to any restrictions by holders of Intellectual Property rights. However, if a Participant has greater rights of use to such Information under the JSF SDD Framework MOU or its

Supplement to that MOU, that Participant will retain its greater rights of use.

9.2 Government Project Foreground Information

9.2.1 Disclosure: All Project Foreground Information generated by a Participant's military or civilian employees (hereinafter referred to as "Government Project Foreground Information") will be disclosed promptly and without charge to the Participants.

9.2.2 Use: The Participants may use or have used all Government Project Foreground Information without charge for JSF Purposes. The Participant generating Government Project Foreground Information will also retain all its rights of use thereto. Any sale or other transfer to a Third Party will be subject to the provisions of Section XIII (Third Party Sales and Transfers) of this MOU.

9.3 Government Project Background Information

9.3.1 Disclosure: Each Participant, upon request, will disclose promptly and without charge to the requesting Participant any relevant Government Project Background Information generated by its military or civilian employees, provided that:

9.3.1.1 Such Government Project Background Information is necessary to or useful in the Project, with the Participant in possession of the Information determining, after consultation with the requesting Participant, whether it is "necessary to" or "useful in" the Project;

9.3.1.2 Such Government Project Background Information may be made available only if the rights of holders of Intellectual Property rights are not infringed;

9.3.1.3 Disclosure is consistent with national disclosure policies and regulations of the furnishing Participant; and

9.3.1.4 Any disclosure or transfer of such Government Project Background Information to

Contractors is consistent with the furnishing Participant's export control laws and regulations.

- 9.3.2 Use: Government Project Background Information furnished by one Participant to the requesting Participant may be used without charge by or for the requesting Participant for Project purposes. However, subject to Intellectual Property rights held by entities other than the Participants, such Government Project Background Information may be used for JSF Purposes by the requesting Participant, without charge, when such Information is necessary for the use of Project Foreground Information. The furnishing Participant, in consultation with the other Participant, will determine whether the Government Project Background Information is necessary for the use of Project Foreground Information. The furnishing Participant will retain all its rights with respect to such Government Project Background Information.

9.4 Contractor Project Foreground Information

- 9.4.1 Disclosure: Project Foreground Information generated and delivered by Contractors (hereinafter referred to as "Contractor Project Foreground Information"), will be disclosed promptly and without charge to the Participants. Project Foreground Information generated by a Contractor, but not delivered, will be made available upon the request of the Participants at the cost of the Information's conversion into the prescribed form and the cost of reproduction and delivery in accordance with the terms of the applicable Contract.
- 9.4.2 Use: The Participants may use or have used without charge for JSF Purposes all Contractor Project Foreground Information generated and delivered by Contractors of the Participants. The Participant whose Contractors generate and deliver Contractor Project Foreground Information will also retain all its rights of use thereto in accordance with the applicable Contract(s). Any sale or other transfer to a Third Party of Contractor Project Foreground Information will be subject to the provisions of

Section XIII (Third Party Sales and Transfers) of this MOU.

9.5 Contractor Project Background Information

9.5.1 Disclosure: A Contracting Participant will make available to the other Participants promptly and without charge all Project Background Information generated by Contractors which is delivered under Contracts awarded in accordance with this MOU. Any other Project Background Information which is generated by Contractors and which is in the possession of one Participant will be made available promptly and without charge to another Participant, upon its request, provided the following conditions are met:

9.5.1.1 Such Contractor Project Background Information is necessary to or useful in the Project, with the Participant in possession of the Information determining, after consultation with the requesting Participant, whether it is "necessary to" or "useful in" the Project;

9.5.1.2 Such Contractor Project Background Information may be made available only if the rights of holders of Intellectual Property rights are not infringed;

9.5.1.3 Disclosure is consistent with national disclosure policies and regulations of the furnishing Participant; and

9.5.1.4 Any disclosure or transfer of such Contractor Project Background Information to Contractors is consistent with the furnishing Participant's export control laws and regulations.

9.5.2 Use: All Project Background Information delivered by Contractors under Contracts awarded in accordance with this MOU may be used by or for the receiving Participants, without charge, for JSF Purposes, subject to any restrictions by holders of Intellectual Property rights other than the Participants. Any other Project Background

Information furnished by one Participant's Contractors and disclosed to a requesting Participant may be used without charge by the requesting Participant for Project purposes, subject to any restrictions by holders of Intellectual Property rights other than the Participants; also, when necessary for the use of Project Foreground Information, such other Contractor Project Background Information may be used by the requesting Participant for JSF Purposes, subject to such fair and reasonable terms as may be necessary to be arranged with the Contractor. The furnishing Participant, in consultation with the requesting Participant, will determine whether such other Contractor Project Background Information is necessary for the use of Project Foreground Information. The furnishing Participant will retain all its rights with respect to Contractor Project Background Information.

9.6 Alternative Uses of Project Information

9.6.1 The prior written consent of the U.S. Government will be required for the use of Project Foreground Information by the other Participants for purposes other than those provided for in paragraphs 9.1.5.1, 9.2.2 and 9.4.2 of this Section. Prior to the issuance of any such consent in the case of Project Foreground Information generated for the common or Partially Common requirements of the Participants, the JSF/ID Director will consult with the National Deputies of the Participants that funded the generation of that Information.

9.6.2 Any Project Background Information provided by one Participant will be used by the other Participants only for the purposes set forth in this MOU, unless otherwise consented to in writing by the providing Participant.

9.7 Proprietary Project Information

9.7.1 All Project Information that is subject to disclosure and use restrictions with respect to Intellectual Property rights will be identified and marked, and it will be handled as Controlled Unclassified Information or as Classified

Information, depending on its security classification.

- 9.7.2 For NATO member Participants, the provisions of the NATO Agreement on the Communication of Technical Information for Defense Purposes, done at Brussels on 19 October 1970, and the Implementing Procedures for the NATO Agreement on the Communication of Technical Information for Defense Purposes, approved by the North Atlantic Council on 1 January 1971 (or any successor agreement and procedures) will apply to Project Information that is subject to Intellectual Property rights. The Australian DoD consents to the insertion of provisions in the PSI that are no less stringent than the NATO Agreement on the Communication of Technical Information for Defense Purposes, done at Brussels on 19 October 1970, and the Implementing Procedures for the NATO Agreement on the Communication of Technical Information for Defense Purposes, approved by the North Atlantic Council on 1 January 1971. As to the Australian DoD, in the event of an inconsistency between the PSI and the NATO agreement, the PSI will prevail.

9.8 Patents

- 9.8.1 Each Participant will include in all its Contracts for the Project a provision governing the disposition of rights in regard to Project Inventions and Patent rights relating thereto, which either:
- 9.8.1.1 Provides that the Participant will hold title to all such Project Inventions together with the right to make Patent applications for the same, free of encumbrance from the Contractor concerned; or
 - 9.8.1.2 Provides that the Contractor will hold title (or may elect to retain title) for such Project Inventions together with the right to make Patent applications for the same, while securing for the Participants a license for the Project Inventions, and any

Patents thereto, on terms in compliance with the provisions of paragraph 9.8.2 below.

- 9.8.2 In the event that a Contractor owns title (or elects to retain title) to any Project Invention, the Contracting Participant will secure for the other Participants non-exclusive, irrevocable, royalty-free licenses under all Patents secured for that invention, to practice or have practiced the patented Project Invention throughout the world for JSF Purposes.
- 9.8.3 The provisions of subparagraphs 9.8.4 through 9.8.7 below will apply in regard to Patent rights for all Project Inventions made by the Participants' military or civilian employees, including those within Government-owned facilities, and for all Project Inventions made by Contractors for which the Contracting Participant holds title or is entitled to acquire title.
- 9.8.4 Where a Participant has or can secure the right to file a Patent application with regard to a Project Invention, that Participant will consult with the other Participants regarding the filing of such Patent application. The Participant that has or receives title to such Project Invention will, in other countries, file, cause to be filed, or provide the other Participants with the opportunity to file on behalf of the Participant holding title, Patent applications covering that Project Invention. A Participant will immediately notify other Participants that a Patent application has been filed. If a Participant, having filed or caused to be filed a Patent application, abandons prosecution of the application or ceases maintaining the Patent granted or issued on the application, that Participant will notify the other Participants of that decision and permit the other Participants to continue the prosecution or maintain the Patent as the case may be.
- 9.8.5 Each Participant will be furnished with copies of Patent applications filed and Patents granted with regard to Project Inventions.

9.8.6 Each Participant will grant to the other Participants a non-exclusive, irrevocable, royalty-free license under its Patents for Project Inventions, to practice or have practiced the Project Invention throughout the world for JSF Purposes.

9.8.7 For NATO member Participants, Patent applications to be filed, or assertions of other Intellectual Property rights, under this MOU that contain Classified Information will be protected and safeguarded in a manner no less stringent than the requirements contained in the NATO Agreement for the Mutual Safeguarding of Secrecy of Inventions Relating to Defence and for Which Applications for Patents Have Been Made, done in Paris on 21 September 1960, and its Implementing Procedures (or any successor agreement and procedures). The Australian DoD consents to the insertion of provisions in the PSI that are no less stringent than the NATO Agreement for the Mutual Safeguarding of Secrecy of Inventions Relating to Defence and for Which Applications for Patents Have Been Made, done in Paris on 21 September 1960, and its Implementing Procedures. As to the Australian DoD, in the event of an inconsistency between the PSI and the NATO agreement, the PSI will prevail.

9.9 Intellectual Property Infringement Claims

9.9.1 Each Participant will notify the other Participants of any Intellectual Property infringement claims brought against that Participant arising in the course of work performed under the Project on behalf of one or more of the other Participants. Insofar as possible, the other applicable Participants will provide Information available to them that may assist in defending such claims. Each Participant will be responsible for handling such Intellectual Property infringement claims brought against it, and will consult with the other Participants during the handling, and prior to any settlement, of such claims. The Participants will share the costs of resolving such Intellectual Property infringement claims in proportion to their financial contributions for that work specified in Section V (Financial Provisions). The Participants

will, as permitted by their national laws, regulations, and practices, give their authorization and consent for all use and manufacture in the course of work performed under the Project of any invention covered by Patent, or as determined to be necessary for work under the Project, authorization and consent for Non-commercial copyright, granted or otherwise provided by their respective countries.

SECTION X

CONTROLLED UNCLASSIFIED INFORMATION

10.1 Except as otherwise provided in this MOU or as authorized in writing by the originating Participant, Controlled Unclassified Information provided or generated pursuant to this MOU will be controlled as follows:

- 10.1.1 Such Information will be used only for the purposes authorized for use of Project Information as specified in Section IX (Disclosure and Use of Project Information).
- 10.1.2 Access to such Information will be limited to personnel whose access is necessary for the permitted use under subparagraph 10.1.1 of this Section, and will be subject to the provisions of Section XIII (Third Party Sales and Transfers).
- 10.1.3 Each Participant will take all appropriate lawful steps, which may include national classification, available to it to keep such Information free from further disclosure (including requests under any legislative provisions), except as provided in subparagraph 10.1.2 of this Section, unless the originating Participant consents to such disclosure. In the event of unauthorized disclosure, or if it becomes probable that the Information may have to be further disclosed under any legislative provision, immediate notification will be given to the originating Participant.

10.2 To assist in providing the appropriate controls, the originating Participant will ensure that Controlled Unclassified Information is appropriately marked to ensure its "in confidence" nature. The Participants' export-controlled Information will be marked in accordance with the applicable Participant's export control markings as documented in the Project Security Instruction (PSI). The Participants will also decide, in advance and in writing, on the markings to be placed on any other types of Controlled Unclassified Information and describe such markings in the PSI.

10.3 Controlled Unclassified Information provided or generated pursuant to this MOU will be handled in a manner that ensures control as provided for in paragraph 10.1 of this Section.

10.4 Prior to authorizing the release of Controlled Unclassified Information to Contractors, the Participants will ensure the Contractors are legally bound to control such Information in accordance with the provisions of this Section.

SECTION XI

VISITS TO ESTABLISHMENTS

11.1 Each Participant will permit visits to its Government establishments, agencies and laboratories, and Contractor industrial facilities by employees of another Participant or by employees of another Participant's Contractor(s), provided that the visit is authorized by the Participants involved in the visit and the employees have any necessary and appropriate security clearances and a need-to-know.

11.2 All visiting personnel will be required to comply with security regulations of the hosting Participant. Any Information disclosed or made available to visitors will be treated as if supplied to the Participant sponsoring the visiting personnel, and will be subject to the provisions of this MOU.

11.3 Requests for visits by personnel of one Participant to a facility of another Participant will be coordinated through official channels, and will conform with the established visit procedures of the host country. Requests for visits will bear the name of the Project.

11.4 Lists of personnel of each Participant required to visit, on a continuing basis, facilities of another Participant will be submitted through official channels in accordance with recurring international visit procedures.

SECTION XII

SECURITY

12.1 All Classified Information provided or generated pursuant to this MOU will be used, stored, handled, transmitted, and safeguarded in accordance with bilateral or multilateral security agreements between the Participants.

12.2 Classified Information will be transferred only through official Government-to-Government channels or through channels approved by the NSAs/DSAs of the Participants. Such Classified Information will bear the level of classification, denote the country of origin, the provisions of release, and the fact that the Information relates to this MOU. Each Participant will take steps to facilitate the transfer of such Classified Information in a timely manner.

12.3 Each Participant will take all appropriate lawful steps available to it to ensure that Classified Information provided or generated pursuant to this MOU is protected from further disclosure, except as permitted by paragraph 12.8 of this Section, unless the other Participants consent to such disclosure. Accordingly, each Participant will ensure that:

12.3.1 The recipient will not release the Classified Information to any Government, national, organization, or other entity of a Third Party except as permitted under the procedures detailed in Section XIII (Third Party Sales and Transfers).

12.3.2 The recipient will not use the Classified Information for other than the purposes provided for in this MOU.

12.3.3 The recipient will comply with any distribution and access restrictions on Classified Information that is provided under this MOU.

12.4 The Participants will investigate all cases in which it is known or where there are grounds for suspecting that Classified Information provided or generated pursuant to this MOU has been lost or disclosed to unauthorized persons. Each Participant also will promptly and fully inform the other Participants of the details of any such occurrences, and of the final results of

the investigation and of the corrective action taken to preclude recurrences.

12.5 The Director, JSF/ID will prepare a PSI and a CG for the Project. The PSI and the CG will describe the methods by which Project Information will be classified, marked, used, transmitted, and safeguarded (including, but not limited to, the JSF Program Office request for Information process), and will require that the markings for all export-controlled Classified and Controlled Unclassified Information will include the applicable export control markings identified in the PSI in accordance with paragraph 10.2 of Section X (Controlled Unclassified Information). The PSI and CG will be developed by the Director, JSF/ID within three months after this MOU enters into effect. They will be reviewed and forwarded to the Participants' NSAs/DSAs for approval and will be applicable to all Government and Contractor personnel participating in the Project. The CG will be subject to regular review and revision with the aim of downgrading the classification whenever this is appropriate. The PSI and the CG will be approved by the appropriate NSAs/DSAs prior to the transfer of any Classified Information or Controlled Unclassified Information.

12.6 The NSAs/DSAs of the Participant in which a classified Contract is awarded will assume responsibility for administering within its territory security measures for the protection of the Classified Information, in accordance with its laws and regulations. Prior to the release to a Contractor, Prospective Contractor, or subcontractor of any Classified Information received under this MOU, the NSAs/DSAs will:

- 12.6.1 Ensure that such Contractor, Prospective Contractor or subcontractor and their facility(ies) have the capability to protect the Classified Information adequately.
- 12.6.2 Grant a security clearance to the facility(ies), if appropriate.
- 12.6.3 Grant a security clearance for all personnel whose duties require access to Classified Information, if appropriate.
- 12.6.4 Ensure that all persons having access to the Classified Information are informed of their responsibilities to protect the Classified

Information in accordance with national security laws and regulations, and provisions of this MOU.

12.6.5 Carry out periodic security inspections of cleared facilities to ensure that the Classified Information is properly protected.

12.6.6 Ensure that access to the Classified Information is limited to those persons who have a need-to-know for purposes of the MOU.

12.7 Contractors, Prospective Contractors, or subcontractors which are determined by NSAs/DSAs to be under financial, administrative, policy or management control of nationals or entities of a Third Party, may participate in a Contract or subcontract requiring access to Classified Information provided or generated pursuant to this MOU only when enforceable measures are in effect to ensure that nationals or other entities of a Third Party will not have access to Classified Information. If enforceable measures are not in effect to preclude access by nationals or other entities of a Third Party, the other Participants will be consulted for approval prior to permitting such access.

12.8 For any facility wherein Classified Information is to be used, the responsible Participant or Contractor will approve the appointment of a person or persons to exercise effectively the responsibilities for safeguarding at such facility the Information pertaining to this MOU. These officials will be responsible for limiting access to Classified Information involved in this MOU to those persons who have been properly approved for access and have a need-to-know.

12.9 Each Participant will ensure that access to the Classified Information is limited to those persons who possess requisite security clearances and have a specific need for access to the Classified Information in order to participate in the Project.

12.10 Information provided or generated pursuant to this MOU may be classified as high as TOP SECRET. The U.S. DoD may enter into bilateral classified MOU Supplements with the other Participants, as necessary, in order to address necessary security measures and other bilateral issues. The existence of this MOU is UNCLASSIFIED and the contents are UNCLASSIFIED.

SECTION XIII

THIRD PARTY SALES AND TRANSFERS

13.1 Subject to paragraph 13.3 of this Section, the U.S. Government will not sell, transfer title to, disclose, or transfer possession of Project Foreground Information, Jointly Acquired Equipment, or any item produced either wholly or in part from Project Foreground Information to any Third Party without prior consultation with the Governments of the other Participants. Furthermore, the U.S. Government will not permit any such sale, disclosure, or transfer, including by the owner of the item, without prior consultation with the Governments of the other Participants. The U.S. Government recognizes that it is important to the other Participants that U.S. Government decisions on such potential sales, disclosures, and transfers take into account the views on security matters held by the other Participants. The U.S. Government also recognizes that sales, disclosures, or other transfers described in this paragraph will be made only if the Government of the intended recipient consents in writing that it will:

- 13.1.1 Not retransfer, or permit the further retransfer of, any equipment or Information provided; and
- 13.1.2 Use, or permit the use of, the equipment or Information provided only for the purposes for which such equipment or Information is furnished.

13.2 Subject to paragraph 13.3 of this Section, the other Participants, individually and collectively, will not sell, transfer title to, disclose, or transfer possession of Project Foreground Information, Jointly Acquired Equipment, or any item produced wholly or in part from Project Foreground Information to any Third Party without the prior written consent of the U.S. Government. Furthermore, the other Participants will not permit any such sales, disclosure, or transfer by others, including the owner of the item, without the prior written consent of the U.S. Government. The other Participants recognize that sales, disclosures, or other transfers described in this paragraph will be authorized only if the Government of the intended recipient consents in writing that it will:

- 13.2.1 Not retransfer or permit the further retransfer of any equipment or Information provided; and

13.2.2 Use, or permit the use of, the equipment or Information provided only for the purposes for which such equipment or Information is furnished.

13.3 In the case of Project Foreground Information that is wholly funded by a Participant other than the U.S. DoD ("funding Participant") for its unique requirements or any item that is produced from such Project Foreground Information, the Participants (including the U.S. DoD) will not sell, transfer title to, disclose, or transfer possession of such Project Foreground Information or any item produced from such Project Foreground Information to any Third Party without the prior written consent of the U.S. Government and the Government of the funding Participant. Furthermore, the Participants (including the U.S. DoD) will not permit any such sale, disclosure, or transfer, including by the owner of the item, without the prior consent of the U.S. Government and the Government of the funding Participant. The Participants (including the U.S. DoD) recognize that sales, disclosures, or other transfers described in this paragraph will be made only if the Government of the intended recipient consents in writing that it will:

13.3.1 Not retransfer or permit the further retransfer of any equipment or Information provided; and

13.3.2 Use, or permit the use of, the equipment or Information provided only for the purposes for which such equipment or Information is furnished.

13.4 Each Participant will retain its right to sell, transfer title to, disclose, or transfer possession of its Project Background Information, provided it does not include any Project Foreground Information or Project Background Information of the other Participants.

13.5 A Participant will not sell, transfer title to, disclose, or transfer possession of Project Background Information or Project Equipment provided by another Participant to any Third Party without the prior written consent of the Government of the Participant that provided such equipment or Information. The providing Participant's Government will be solely responsible for authorizing such transfers and, as applicable, specifying the method and conditions for implementing such transfers.

13.6 A Participant's consent to Third Party sales and transfers of Project Foreground Information, Jointly Acquired Equipment, or any item produced either wholly or in part from Project

Foreground Information will be subject to its foreign policy, national security considerations, and national laws, regulations, and policies.

13.7 The Participants anticipate that other governments may wish to buy JSF Air Systems. Consistent with Section VII (Industrial Participation), the Participants recognize the advantages of their respective nations' industries working together to provide such JSF Air Systems for sale to other governments.

13.8 Sales and other transfers by a Participant or a Contractor to Third Parties of equipment cooperatively developed as a common or Partially Common effort under the JSF Program may attract a levy to be shared among the Participants who contributed to those efforts ("contributing Participants") in accordance with the following provisions and the procedures contained in the FMPD:

- 13.8.1 Prior to any such sale or other transfer, the amount of any levy and the procedures for assessing and distributing such levy will be mutually determined by the contributing Participants and the Participant who will make (or whose Contractors will make) the sale or transfer, consistent with the laws and regulations of each applicable Participant, using a pro rata recovery method described in paragraph 13.8.2 of this Section, or in accordance with paragraph 13.8.3 of this Section, as applicable.
- 13.8.2 The JSF Program Office, in consultation with U.S. DoD authorities, will determine the total qualifying non-recurring costs for research and development (including JSF research and development in the Concept Demonstration phase, System Development and Demonstration phase, and follow-on development efforts), and production of the equipment proposed for sale or transfer. The research, development, and production non-recurring costs of such equipment must exceed 50 million U.S. dollars to qualify for levy collection by one Participant or its Contractors for the other Participants. Qualifying non-recurring costs for levy collection will be determined in accordance with U.S. laws and U.S. DoD regulations concerning recoupment of non-recurring costs. Once qualifying

non-recurring costs have been determined for the equipment proposed for sale or transfer, the JSF Program Office will divide those total costs by the total projected production of that equipment, based on the projected procurement quantities of the contributing Participants and Third Parties. Upon JESB approval, the resulting figure will constitute the levy that may be assessed for the equipment proposed for sale or transfer. Each contributing Participant's share of that levy will be calculated by multiplying the levy by the ratio of the contributing Participant's total qualifying non-recurring costs for research and development, and production of the equipment to all of the contributing Participants' total qualifying non-recurring costs for research and development, and production of the equipment.

- 13.8.3 The provisions of paragraph 13.8.2 of this Section will not apply in those cases in which a non-U.S. DoD Participant or its Contractors collect, on behalf of other non-U.S. DoD Participants, a levy on equipment developed as a Partially Common effort by non-U.S. DoD Participants. In such cases, the non-U.S. DoD Participant or its Contractors collecting the levy and the non-U.S. DoD Participants that funded the development of the equipment will determine the appropriate recovery method and other applicable levy determination processes.

13.9 Sales and other transfers by a Participant or a Contractor to Third Parties of equipment for which the development was wholly funded under the JSF Program by a Participant for its unique requirements may attract a levy for that Participant, in accordance with the following provisions and the procedures contained in the FMPD:

- 13.9.1 Prior to any such sale or other transfer, the amount of any levy and the procedures for assessing and distributing such levy will be mutually determined by that Participant and the Participant who will make (or whose Contractors will make) the sale or transfer, consistent with the laws and regulations of both Participants, using a pro rata recovery method described in paragraph 13.9.2 of

this Section or in accordance with paragraph 13.9.3 of this Section.

13.9.2 For those levy collections made by the U.S DoD or its Contractors on behalf of another Participant, the JSF Program Office, in consultation with U.S. DoD authorities, will determine the total qualifying non-recurring costs for research and development, and production of the equipment proposed for sale or transfer. The research, development, and production non-recurring costs of such equipment must exceed 50 million U.S. dollars to qualify for such levy collections. Qualifying non-recurring costs for levy collection will be determined in accordance with U.S. laws and U.S. DoD regulations concerning recoupment of non-recurring costs. Once qualifying non-recurring costs have been determined for the equipment proposed for sale or transfer, the JSF Program Office will divide those total costs by the total projected production of that equipment, based on the projected procurement quantities of the Participant and Third Parties. Upon approval by the JESB representative of the Participant that funded the equipment's development, the resulting figure will constitute the levy that may be assessed for the equipment proposed for sale or transfer.

13.9.3 The provisions of paragraph 13.9.2 of this Section will not apply to those levy collections made by a non-U.S. DoD Participant or its Contractors on behalf of another non-U.S. DoD Participant. In such cases, the non-U.S. DoD Participant or its Contractors collecting the levy and the non-U.S. DoD Participant that funded the development of the equipment will determine the appropriate recovery method and other applicable levy determination processes.

13.10 Levies for the equipment addressed in paragraphs 13.8 and 13.9 of this Section will be collected for each applicable Participant in accordance with this Section, but in no event will levies continue to be collected for a Participant after that Participant's total qualifying non-recurring costs for that equipment have been recouped. Each Participant making a Third Party sale or other transfer of such equipment will be

responsible for collecting levies on behalf of the applicable Participants and will reimburse the applicable Participants based on the levies calculated in accordance with this Section. Each Participant will bear that responsibility even if that Participant decides to reduce or waive its share of the levies in accordance with paragraph 13.11. Each Participant will require its Contractors (through such appropriate Contracts for the Project as may be available) to collect levies on behalf of the applicable Participants (excluding the U.S. DoD) when those Contractors make a direct sale or other transfer of equipment addressed in paragraph 13.8 or paragraph 13.9 to a Third Party, and to reimburse the applicable Participants based on the levies calculated in accordance with this Section.

13.11 A Participant may reduce or waive the assessment of its share of a levy on any Third Party sale or transfer.

13.12 The Participants acknowledge that U.S. Government Foreign Military Financing funds may not be used to pay levies on any Third Party sales or transfers of equipment developed under the JSF Program, and that the Third Party will pay any such levies with other funds.

SECTION XIV

LIABILITY AND CLAIMS

14.1 Subject to multilateral and bilateral treaties and agreements of the Participants concerning liability for claims, when applicable, the following provisions will apply regarding liability arising out of, or in connection with, activities carried out in the performance of official duty in the execution of this MOU:

14.1.1 With the exception of claims for loss of or damage to Project Equipment, which are addressed in Section VIII (Project Equipment and Jointly Acquired Equipment), each Participant waives all claims against the other Participants for injury to or death of its military or civilian personnel (which do not include Project Contractors) and for damage to or loss of its property (including its interest in Jointly Acquired Equipment) caused by such personnel of another Participant. If, however, such injury, death, damage, or loss results from reckless acts or reckless omissions, willful misconduct or gross negligence of a Participant's personnel, the costs of any liability will be borne by that Participant alone.

14.1.2 Claims from any other persons (either individuals or entities) for injury, death, damage or loss of any kind caused by one of the Participants' personnel will be processed by the most appropriate Participant, as determined by the Participants. Any costs determined to be owed the claimant will be borne by the Participants in proportion to their financial contributions, as specified in Section V (Financial Provisions), for the work out of which the claim arose. If, however, such liability results from the reckless acts or reckless omissions, willful misconduct or gross negligence of a Participant's personnel, the costs of any liability will be borne by that Participant alone.

14.2 If a person or entity, other than the Participants (including their personnel), damages Jointly Acquired Equipment, and the cost of making good such damage is not recoverable from such person or entity, such cost will be borne by the

Participants in proportion to their financial contributions, as specified in Section V (Financial Provisions), for the work for which the Jointly Acquired Equipment was obtained.

14.3 Claims arising under any Contract awarded under this MOU will be resolved in accordance with the provisions of that Contract.

SECTION XV

PARTICIPATION OF ADDITIONAL NATIONS

15.1 The Participants in the JSF PSFD MOU will be limited to the signatories of the JSF SDD Framework MOU. The JSF PSFD MOU will not confer any benefits or impose any requirements upon a JSF SDD Framework MOU signatory until such signatory becomes a Participant under the JSF PSFD MOU.

15.2 If a signatory of the JSF SDD Framework MOU wishes to accede to the JSF PSFD MOU twelve months after the latter has entered into effect in accordance with paragraph 19.9 of Section XIX (Amendment, Withdrawal, Termination, Entry Into Effect, and Duration), the accession of that signatory will require an amendment to this MOU. Upon its accession, the new Participant to the JSF PSFD MOU will pay its share of the Project costs incurred prior to its accession, calculated in accordance with the cost sharing arrangements in Section V (Financial Provisions), and the future contributions of the other Participants will be adjusted accordingly.

SECTION XVI

CUSTOMS DUTIES, TAXES, AND SIMILAR CHARGES

16.1 Customs duties, import and export taxes, and similar charges will be administered in accordance with each Participant's respective laws and regulations. Insofar as existing national laws and regulations permit, the Participants will endeavor to ensure that such readily identifiable duties, taxes and similar charges, as well as quantitative or other restrictions on imports and exports, are not imposed in connection with work carried out under this Project.

16.2 Each Participant will use its best efforts to ensure that customs duties, import and export taxes, and similar charges are administered in a manner favorable to the efficient and economical conduct of the work. If any such duties, taxes, or similar charges are levied, the Participant in whose country they are levied will bear such costs over and above that Participant's shared costs of the Project.

16.3 If, in order to apply European Union (EU) regulations, it is necessary to levy duties, then these will be met by the EU member end recipient. To this end, parts of the components of the equipment coming from outside the EU will proceed to their final destination accompanied by the relevant customs document enabling settlement of duties to take place. The duties will be levied as a cost over and above that Participant's shared costs of the Project.

SECTION XVII

SETTLEMENT OF DISPUTES

17.1 Disputes among the Participants arising under or relating to this MOU will be resolved only by consultation among the Participants and will not be referred to an individual, to a national court, to an international tribunal, or to any other person or entity for settlement.

SECTION XVIII

LANGUAGE

18.1 The working language for the Project will be the English language.

18.2 All Project Information generated under this MOU and its implementing Contracts and provided by one Participant to the other Participants will be furnished in the English language.

SECTION XIX

AMENDMENT, WITHDRAWAL, TERMINATION, ENTRY INTO EFFECT, AND DURATION

19.1 All activities of the Participants under this MOU will be carried out in accordance with their national laws and regulations, including their export control laws and regulations. The responsibilities of the Participants will be subject to the availability of funds for such purposes. If available funds are not adequate to fulfill a Participant's responsibilities, paragraph 5.17 of Section V (Financial Provisions) will apply.

19.2 Except as otherwise provided herein, this MOU may be amended by the mutual written consent of the Participants. Annex A (Estimated JSF Air Vehicle Procurement Quantities), Annex B (Management Structure), Annex D (Sustainment), Annex E (Follow-on Development Process), and Annex F (Estimated Allocation of Financial Cost Ceilings) of this MOU may be amended by the written approval of the JESB, provided that any such amendment is consistent with the Sections of this MOU.

19.3 This MOU may be terminated at any time upon the written consent of the Participants. In the event the Participants consent to terminate this MOU, the Participants will consult prior to the date of termination to ensure termination on the most economical and equitable terms.

19.4 Any Participant may withdraw from this MOU upon 90 days written notification of its intent to withdraw to the other Participants. Such notice will be the subject of immediate consultation by the JESB to decide upon the appropriate course of action. In the event of such withdrawal, the following rules apply:

19.4.1 The withdrawing Participant will continue participation, financial or otherwise, up to the effective date of withdrawal.

19.4.2 In accordance with paragraph 5.13 of Section V (Financial Provisions), if a Participant's withdrawal occurs prior to production Line Shutdown, the withdrawing Participant will pay its share of the Line Shutdown costs upon its withdrawal. However, if a Participant withdraws

prior to any of its Air Vehicle requirements being placed on Contract, that Participant will not be responsible for paying any Line Shutdown costs.

19.4.3 Except as to Contracts awarded on behalf of the Participants, each Participant will be responsible for its own Project-related costs associated with withdrawing from the Project. For Contracts awarded on behalf of the Participants, the withdrawing Participant will pay all Contract modification or termination costs that would not otherwise have been incurred but for the decision to withdraw; in no event, however, will a withdrawing Participant's total financial contribution, including Contract termination costs, exceed that Participant's total share of the Financial Cost Ceilings for financial contributions as established in Section V (Financial Provisions).

19.4.4 All Project Information and rights therein received under the provisions of this MOU prior to the withdrawal will be retained by the Participants, subject to the provisions of this MOU.

19.5 If a Participant's expenditures reach its maximum contribution amount in paragraph 5.1 of Section V (Financial Provisions), that Participant's performance of the work described in Section III (Scope of Work) under this MOU will be suspended based on conditions determined by the JESB until the Participants have entered into an amendment to the MOU. If the Participants do not enter into an amendment within twelve months of a Participant's suspension, such circumstance will constitute the automatic withdrawal of that Participant. All Project Information and rights therein received under the provisions of this MOU prior to the withdrawal will be retained by the Participants subject to the provisions of this MOU.

19.6 In the event a Participant withdraws from the JSF SDD Framework MOU, such action will constitute that Participant's automatic withdrawal from the JSF PSFD MOU, effective 90 days after the Participant's written notification to withdraw from the JSF SDD Framework MOU. The terms applicable to voluntary withdrawal, detailed in paragraph 19.4 of this Section, will apply to an automatic withdrawal.

19.7 If the U.S. DoD withdraws from the JSF PSFD MOU, the U.S. DoD will use its best efforts to provide, under separate

arrangements, support for the production, sustainment, and follow-on development of the JSF Air System to the remaining Participants as long as those Participants require such support.

19.8 The respective benefits and responsibilities of the Participants regarding Section VIII (Project Equipment and Jointly Acquired Equipment), Section IX (Disclosure and Use of Project Information), Section X (Controlled Unclassified Information), Section XII (Security), Section XIII (Third Party Sales and Transfers), Section XIV (Liability and Claims), Section XVII (Settlement of Disputes), and this Section XIX (Amendment, Withdrawal, Termination, Entry into Effect, and Duration) will continue to apply notwithstanding termination of, withdrawal from, or expiration of this MOU.

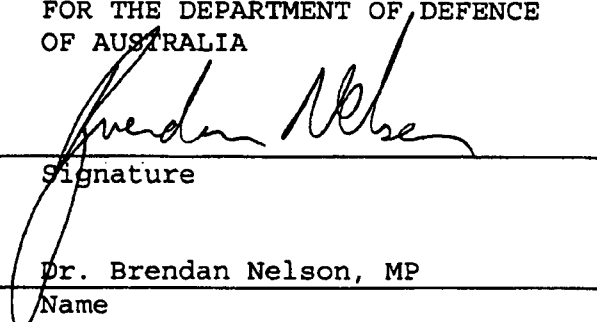
19.9 This MOU, which consists of nineteen (19) Sections and six (6) Annexes, will enter into effect on December 31, 2006, provided that the U.S DoD and at least one other Participant have signed the MOU (and in the event that the Undersecretariat for Defense Industries on Behalf of the Ministry of National Defense of the Republic of Turkey is the other Participant, Parliamentary approval has been issued). As to any Participant that signs the MOU ("subsequent Participant") after it enters into effect, the Participants who have previously signed the MOU will have no responsibilities with regard to that subsequent Participant, and that subsequent Participant will have no responsibilities or benefits under this MOU, until such time as the subsequent Participant has signed the MOU, and, in the case of the Undersecretariat for Defense Industries on Behalf of the Ministry of National Defense of the Republic of Turkey, Parliamentary approval has been issued. If within twelve months after the MOU has entered into effect, all nine Participants have not signed the MOU, or Republic of Turkey Parliamentary approval has not been issued, the Participants who have joined the MOU will immediately consult in order to negotiate an amendment to make those changes necessitated by the reduction in Participants.

19.10 This MOU will remain in effect for forty-five (45) years, and may be extended by the written concurrence of the Participants.

The foregoing represents the understandings reached among the Department of Defence of Australia, the Minister of National Defence of Canada, the Ministry of Defence of Denmark, the Ministry of Defence of the Republic of Italy, the State Secretary of Defence of the Kingdom of the Netherlands, the Ministry of Defence of the Kingdom of Norway, the Undersecretariat for Defense Industries on behalf of the Ministry of National Defense of the Republic of Turkey, the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, and the Secretary of Defense on behalf of the Department of Defense of the United States of America.

Signed, in nine (9) copies, by authorized representatives of the Participants.

FOR THE DEPARTMENT OF DEFENCE
OF AUSTRALIA


Signature

Dr. Brendan Nelson, MP
Name

Minister for Defence
Title

December 12, 2006
Date

Washington, DC
Location

FOR THE MINISTER OF NATIONAL
DEFENCE OF CANADA


Signature

Mr. W.P.D. Elcock
Name

Deputy Minister
of National Defence
Title

December 11, 2006
Date

Washington, DC
Location

FOR THE MINISTRY OF DEFENCE
OF DENMARK



Signature

Mr. Søren Gade

Name

Minister of Defence

Title

February 27, 2007

Date

Copenhagen, Denmark

Location

FOR THE MINISTRY OF DEFENCE
OF THE REPUBLIC OF ITALY



Signature

Sen. Giovanni Lorenzo FORCIERI

Name

Il Sottosegretario Di Stato

Title


February 7, 2007

Date

Washington, DC

Location

THE STATE SECRETARY OF
DEFENCE OF THE KINGDOM OF THE
NETHERLANDS



Signature

Mr. Cees van der Knaap

Name

State Secretary of Defence

Title

November 14, 2006

Date

Washington, DC

Location

FOR THE MINISTRY OF DEFENCE
OF THE KINGDOM OF NORWAY



Signature

Mrs. Anne-Grete Strøm-Erichsen

Name

Minister of Defence

Title

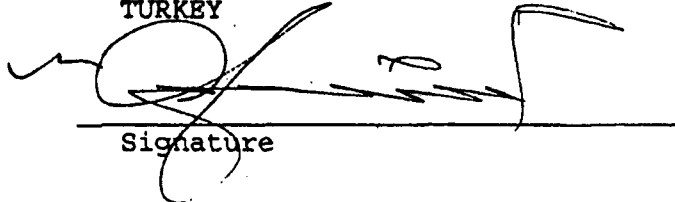
January 31, 2007

Date

Oslo, Norway

Location

FOR THE UNDERSECRETARIAT FOR
DEFENSE INDUSTRIES ON BEHALF
OF THE MINISTRY OF NATIONAL
DEFENSE OF THE REPUBLIC OF
TURKEY



Signature

Mr. M. Vecdi Gönül

Name

Minister of National Defense
Title

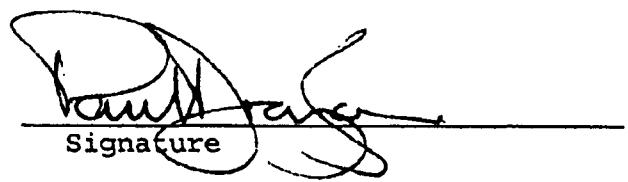
January 25, 2007

Date

Washington, DC

Location

FOR THE SECRETARY OF STATE
FOR DEFENCE OF THE UNITED
KINGDOM OF GREAT BRITAIN AND
NORTHERN IRELAND



Signature

Lord Drayson

Name

Minister Defence Procurement
Title

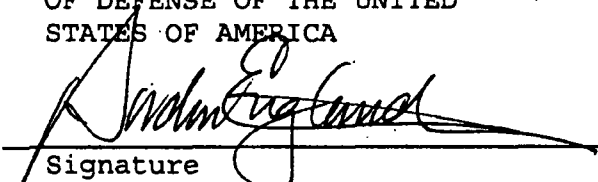
December 12, 2006

Date

Washington, DC

Location

FOR THE SECRETARY OF DEFENSE
ON BEHALF OF THE DEPARTMENT
OF DEFENSE OF THE UNITED
STATES OF AMERICA



Signature

Mr. Gordon England

Name

Deputy Secretary of Defense
Title

November 14, 2006

Date

Washington, DC

Location

ANNEX A

ESTIMATED JSF AIR VEHICLE PROCUREMENT QUANTITIES

The estimated JSF Air Vehicle procurement quantities of the Participants are identified in Table A-1.

Table A-1 Participants' Estimated JSF Air Vehicle Procurement Quantities (Projected FY of Production Contract Definitization (approximately two years prior to delivery))												
Participant	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18
Australia	0	0	0	2	6	14	15	15	15	15	15	3
Canada	0	0	0	0	0	0	0	10	10	10	10	10
Denmark	0	0	0	0	0	0	0	8	8	8	8	8
Italy	0	0	0	0	0	6	6	14	14	14	14	14
Netherlands	0	0	1	2	0	6	10	12	12	12	12	18
Norway	0	0	0	0	0	0	0	8	12	12	12	4
Turkey	0	0	0	0	0	10	10	10	12	12	10	10
United Kingdom	0	0	2	3	8	3	2	9	9	12	12	12
United States	5	16	47	56	64	103	135	157	160	160	160	160
Total	5	16	50	63	78	142	178	243	252	255	253	239

Table A-1 Participants' Estimated JSF Air Vehicle Procurement Quantities (Continued)											
Participant	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	Total	% of Total
Australia	0	0	0	0	0	0	0	0	0	100	3.2%
Canada	10	10	10	0	0	0	0	0	0	80	2.5%
Denmark	8	0	0	0	0	0	0	0	0	48	1.5%
Italy	12	12	12	12	1	0	0	0	0	131	4.1%
Netherlands	0	0	0	0	0	0	0	0	0	85	2.7%
Norway	0	0	0	0	0	0	0	0	0	48	1.5%
Turkey	10	10	6	0	0	0	0	0	0	100	3.2%
United Kingdom	12	12	12	12	12	6	0	0	0	138	4.3%
United States	160	160	160	153	148	118	110	110	101	2443	77.0%
Total	212	204	200	177	161	124	110	110	101	3173	100.0%

ANNEX B

MANAGEMENT STRUCTURE

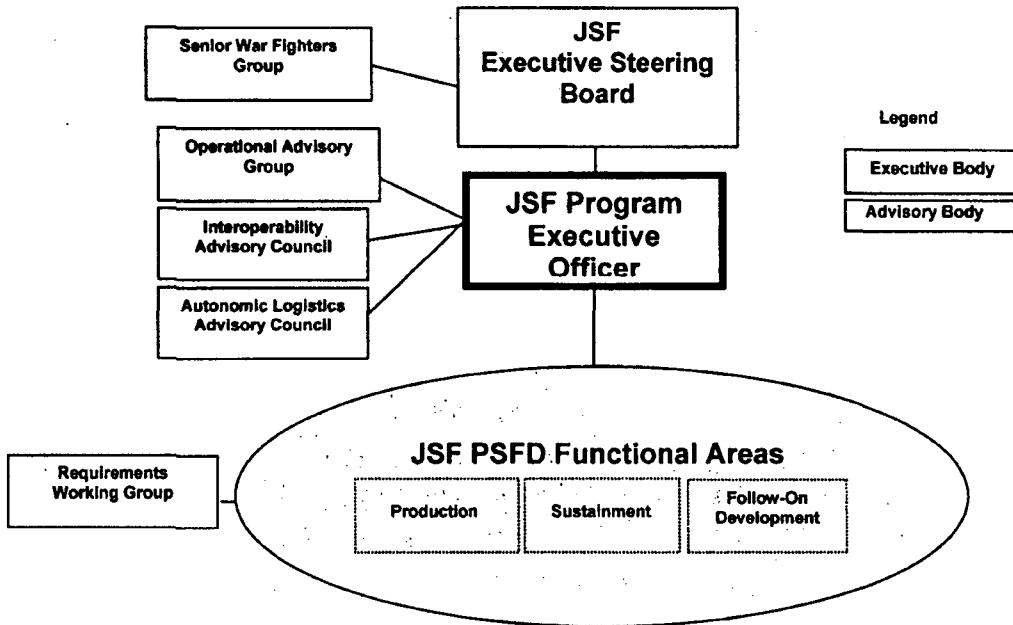


Figure 1. JSF Management Structure

Note: The detailed JSF PO organizational structure is shown in Figure 2.

1.0 The JSF Management Structure as depicted in Figure 1 will encompass external and internal JSF management groups as described below.

2.0 External JSF Management Groups

2.1 The functions of the JSF Executive Steering Board (JESB) are provided in Section IV (Management (Organization and Responsibility)).

2.1.1 The Senior Warfighters Group (SWG) will provide senior-level guidance to the JESB regarding the JSF Program from the warfighters' and sustainment communities'

perspective, and will review and discuss the operational significance and sustainment impact of proposed JSF Program and configuration baseline changes. The SWG will consist of Flag and General officers representing the Participants' warfighting and sustainment communities.

2.2 The functions of the JSF Program Executive Officer (JSF PEO) are provided in Section IV (Management (Organization and Responsibility)).

2.2.1 The Operational Advisory Group (OAG) will provide a conduit for liaison between the JSF Program Office and the Participants' requirements and operational communities. It will participate in and review relevant trade studies, and will provide operational and sustainment advice on requirements issues. The OAG will consist of representatives from all Participants.

2.2.2 The Autonomic Logistics Advisory Council (ALAC) will provide a multi-service, international forum of senior executives to advise the JSF Program Office of the design and delivery of JSF Air System support capabilities from the perspective of the operational and logistics support user communities. The ALAC will consist of Flag and General officers or equivalent-level civilian officials representing the Participants' logistics communities.

2.2.3 The Interoperability Advisory Council (IAC) will address JSF interoperability issues that are beyond the cognizance of the JSF Program Office and will provide advice to the JSF PEO. The IAC will consist of Flag and General officers or equivalent-level civilian officials representing the Participants' interoperability communities.

3.0 Internal JSF Management Groups

3.1 The JSF Program Office will employ multi-disciplined and product-focused Integrated Product

Teams (IPTs) to efficiently manage and execute Project requirements. The IPTs will consist of representatives of the Participants from a variety of subject matter areas (i.e., program management, engineering, environmental, manufacturing, Contracting, financial management, quality assurance, safety, supportability, and training).

- 3.2 The Requirements Working Group (RWG) will function as the Follow-on Development process manager. The RWG will coordinate the JSF Air System Product Roadmap efforts referenced in Annex E (Follow-on Development Process), provide a forum for new requirements and science and technology inputs, and make requirements disposition recommendations to the JSF PEO. The RWG will consist of representatives from the JSF Program Office IPTs and each of the Participants.

4.0 JSF CPP

4.1 General Principles

- 4.1.1 National Deputies and CPP of non-U.S. DoD Participants serving under the JSF SDD Framework MOU may be assigned to perform Project production, sustainment, and follow-on development duties under the JSF PSFD MOU, and the CPP PDD for the JSF SDD Framework MOU will be changed to reflect their additional responsibilities under the JSF PSFD MOU.
- 4.1.2 The JSF PSFD MOU Organization Chart (Figure 2) depicts projected non-U.S. DoD Participant CPP assignments in the JSF Program Office. Additional CPP assignments in the JSF Program Office may be authorized based on the recommendation of the JSF PEO and approval of a change to Figure 2 of this Annex by the JESB. In general, the number of CPP for a non-U.S. Participant in the JSF Program Office will be commensurate to that Participant's share of Financial Costs calculated in accordance with the Composite Share Ratio.

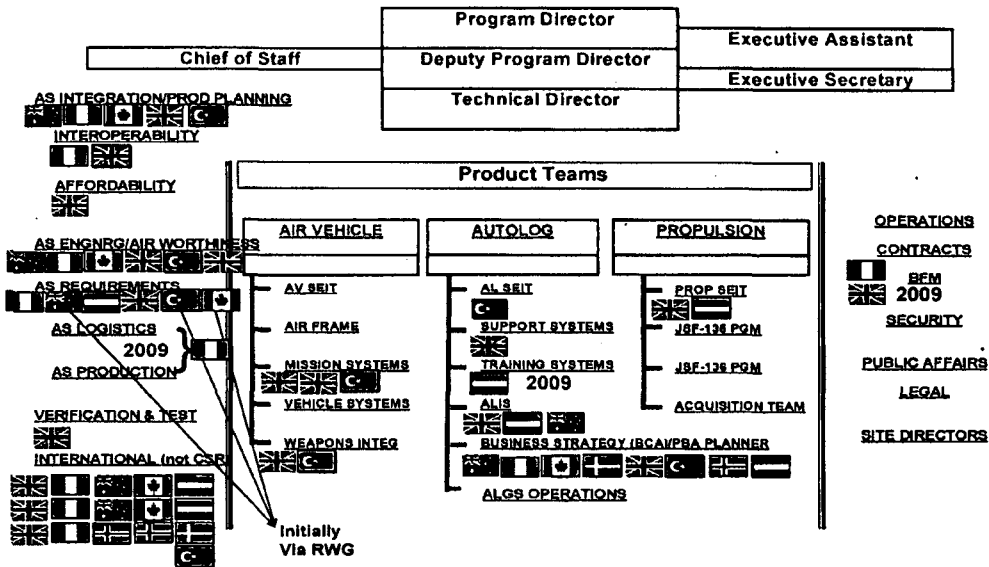


Figure 2. JSF PSFD MOU Organization Chart with CPP Manning

4.1.3 CPP assignments to U.S. DoD field activities outside the JSF Program Office, including but not limited to CPP assignments in ALGS operations facilities in the United States, may be authorized based on the recommendation of the JSF PEO and approval of a change to this Annex by the JESB, which reflects the addition of those assignments. In general, the number of CPP for a non-U.S. DoD Participant in U.S. DoD field activities outside the JSF Program Office will be commensurate to that Participant's share of Financial Costs calculated in accordance with the Composite Share Ratio.

4.1.4 The Participants recognize that CPP requirements that are undefined or unforeseen at the time of entry into effect of this MOU may arise during the course of this MOU. Accordingly, notwithstanding paragraphs 4.1.2, 4.1.3, and 4.2.3 of this

Annex, in order to meet such undefined or unforeseen requirements, Participants may propose CPP assignments to the JSF Program Office, U.S. DoD field activities outside the JSF Program Office, or activities of non-U.S. DoD Participants, even if those assignments are not commensurate with a Participant's share of Financial Costs calculated in accordance with the Composite Share Ratio. Such CPP assignments may be authorized based on the recommendation of the JSF PEO and approval of a change to this Annex by the JESB, except that assignment of U.S. DoD CPPs to the activities of non-U.S. DoD Participants will be authorized based on the recommendation of the JSF PEO and the approval of the JESB representatives of the U.S. DoD and the applicable Host Participant.

4.2 Time Phasing of PSFD MOU CPP Assignments

- 4.2.1 Each non-U.S. DoD Participant may assign three CPPs to the JSF Program Office two years before the projected first Contract for that Participant's JSF Air Vehicles. These CPPs will be assigned to participate in production planning, airworthiness and certification, and PBA coordination.
- 4.2.2 Each non-U.S. DoD Participant may assign one CPP to the ALGS operations facilities in the United States two years before the projected first delivery of that Participant's JSF Air Vehicles. These CPP will be assigned to participate in ALGS planning and implementation efforts.
- 4.2.3 By 2013, when the JSF PSFD Phase is anticipated to reach full maturity, the JSF PEO and the JESB will review PSFD MOU CPP assignments and employ their best efforts to achieve and maintain overall CPP assignments in accordance with the Composite Share Ratio principles outlined in paragraph 4.1.2 of this Annex.

ANNEX C

COOPERATIVE PROJECT PERSONNEL

1.0 Purpose and Scope

- 1.1 This Annex establishes the provisions that will govern the activities of JSF CPP. Each Parent Participant will assign military members or civilian employees to the JSF Program Office, U.S. DoD Field activities, and facilities of non-U.S. DoD Participants in accordance with Section IV (Management (Organization and Responsibility)), Annex B (Management Structure) and this Annex. JSF CPP must be able to perform all the responsibilities for the positions assigned to them under this MOU. Commencement of assignments will be subject to any requirements that may be imposed by the Host Participant or its Government regarding acceptance of JSF CPP, such as, but not limited to, visas and visit request documentation. The JESB will determine the length of tour for the positions at the time of initial assignment.
- 1.2 JSF CPP will be assigned to the JSF Program Office, U.S. DoD field activities, or facilities of non-U.S. DoD Participants for Project work and will report to their designated supervisor within those organizations regarding that work. JSF CPP will not act as liaison officers on behalf of a Parent Participant. However, JSF CPP may act from time to time on behalf of their respective JESB member if the latter so authorizes in writing or as described in the IPT CPP PDD.
- 1.3 JSF CPP will not be assigned to command or other positions that would require them to exercise responsibilities that are reserved by law or regulation to an officer or employee of the Host Participant's Government.

2.0 Security

- 2.1 The JESB will establish the maximum level of security clearance required to permit JSF CPP to have access to Classified Information and

facilities in which Classified Information are used in accordance with the Project Security Instruction (PSI) and Classification Guide (CG). Access to Classified Information and facilities in which Classified Information are used will be consistent with, and limited by, Section II (Objectives) and Section III (Scope of Work) of this MOU and will be kept to the minimum required to accomplish the work assignments.

- 2.2 Each Parent Participant will cause security assurances to be filed, through its embassy, specifying the security clearances for the JSF CPP being assigned. The security assurances will be prepared and forwarded through prescribed channels in compliance with established Host Participant procedures.
- 2.3 The Host Participant and Parent Participants will use their best efforts to ensure that JSF CPP assigned to the JSF Program Office, U.S. DoD field activities, or facilities of non-U.S. DoD Participants are aware of, and comply with, applicable laws and regulations pertaining to Controlled Unclassified Information and Classified Information as well as the requirements of Section X (Controlled Unclassified Information), Section XI (Visits to Establishments), Section XII (Security), and paragraph 19.8 of Section XIX (Amendment, Withdrawal, Termination, Entry into Effect, and Duration) of this MOU and the provisions of the PSI and CG. Prior to commencing assigned duties, JSF CPP will, if required by the Host Participant's Government laws, regulations, policies, or procedures, sign a certification concerning the conditions and responsibilities of JSF CPP.
- 2.4 JSF CPP will at all times be required to comply with the security and export control laws, regulations, and procedures of the Host Participant's Government. Any violation of security procedures by JSF CPP during their assignment will be reported to the Parent Participant for appropriate action. JSF CPP committing willful violations of security and export control laws, regulations, or procedures during their assignments will be withdrawn from the

Project with a view toward appropriate administrative or disciplinary action by their Parent Participant.

- 2.5 All Classified Information made available to JSF CPP will be considered as Classified Information furnished to the Parent Participant, and will be subject to all provisions and safeguards provided for in Section XII (Security), the PSI, and the CG.
- 2.6 JSF CPP will not have personal custody of Classified Information or Controlled Unclassified Information unless approved by the Host Participant and as authorized by the Parent Participant. They will be granted access to such Information and material in accordance with Section X (Controlled Unclassified Information), Section XII (Security), and the PSI during normal duty hours and when access is necessary to perform Project work.
- 2.7 JSF CPP assigned to the JSF Program Office will not serve as a conduit between the Host Participant and Parent Participant for requests and/or transmission of Classified Information or Controlled Unclassified Information unless specifically authorized by the PSI.

3.0 Technical and Administrative Matters

- 3.1 Consistent with the laws and regulations of the Host Participant's Government, JSF CPP will be subject to the same restrictions, conditions, and privileges as Host Participant personnel of comparable rank and in comparable assignments. Further, to the extent authorized by the laws and regulations of the Host Participant's Government, JSF CPP and their authorized dependents will be accorded:
 - 3.1.1 Exemption from any Host Participant's Government tax upon income received from the Parent Participant.
 - 3.1.2 Exemption from any Host Participant's Government customs and import duties or similar charges levied on items entering the country for their official or personal use,

including their baggage, household effects,
and private motor vehicles.

3.2 Upon or shortly after arrival, JSF CPP will be informed by the Host Participant about applicable laws, orders, regulations, and customs and the need to comply with them. JSF CPP will also be provided briefings arranged by the Host Participant regarding applicable entitlements, privileges, and obligations such as:

3.2.1 Any medical and dental care that may be provided to JSF CPP and their dependents at Host Participant medical facilities, subject to applicable laws and regulations, including reimbursement requirements.

3.2.2 Purchasing and patronage privileges at military commissaries, exchanges, theaters, and clubs for JSF CPP and their dependents, subject to applicable laws and regulations.

3.2.3 Responsibility of JSF CPP and their accompanying dependents to obtain motor vehicle liability insurance coverage in accordance with the laws and regulations applicable in the area where they are residing. In case of claims involving the use of private motor vehicles by JSF CPP and their dependents, the recourse will be against such insurance.

3.3 The Host Participant will establish standard operating procedures for JSF CPP in the following areas:

3.3.1 Working hours, including holiday schedules.

3.3.2 Leave authorization, consistent to the extent possible with the military and civilian personnel regulations and practices of the Host Participant and Parent Participant.

3.3.3 Dress regulations, consistent to the extent possible with the military and civilian

personnel regulations and practices of the Host Participant and Parent Participant.

- 3.3.4 Performance evaluations, recognizing that such evaluations will be rendered in accordance with the Parent Participant's military or civilian personnel regulations and practices.
- 3.4 JSF CPP committing an offense under the laws of the Government of the Host Participant or Parent Participant may be withdrawn from this Project with a view toward further administrative or disciplinary action by the Parent Participant. Disciplinary action, however, will not be taken by the Host Participant against JSF CPP, nor will the JSF CPP exercise disciplinary powers over the Host Participant's personnel. In accordance with the laws and regulations of the Host Participant's Government, the Host Participant will assist the Parent Participant in carrying out investigations of offenses involving JSF CPP.
- 3.5 The Participants whose countries are NATO member countries recognize the following: the military and civilian employees of a Participant whose country is a NATO member country, assigned to duty with its Defense Department or Ministry for the purpose of working under this MOU, while present in the territory of another Participant whose country is a NATO member country, will, to the extent that they are so qualified, be members of a "Force" and "civilian component" respectively within the meaning of Article I of the NATO Status of Forces Agreement (NATO SOFA), signed on 19 June 1951. Employees and agents of Contractors do not constitute a civilian component, and NATO SOFA will not apply to them.

ANNEX D

SUSTAINMENT

1.0 Purpose

- 1.1 This Annex describes the ALGS implementation phases and other ALGS details, as well as the provisions that will govern the conduct of the PBA process in support of JSF sustainment.

2.0 ALGS Implementation Phases

- 2.1 The ALGS process, developed under the JSF SDD Framework MOU and addressed at paragraph 3.3.1.4 of Section III (Scope of Work), will involve the implementation of a repeatable business process that will generate qualitative and quantitative analyses to define ALGS. The Participants intend that this process be utilized through phases as generally described below, and specified in more detail in the JSF ALGS Strategic Plan developed under the JSF SDD Framework MOU.

- 2.1.1 The initial sustainment phases will involve initial deployment of the JSF Air System, to include fielding and evaluation of the sustainment solution, and will occur during the various low rate initial production (LRIP) periods. A JSF Program Office sustainment readiness review will be conducted prior to the first Air Vehicle delivery of each LRIP to assess readiness of sustainment services for Participants and validate that the capabilities and configuration of the sustainment hardware and software are consistent with capabilities and configuration description documents. The initial sustainment phases will be used to validate metrics, expose risk, and gain the confidence necessary to support transition to full PBL support. Participants will take part in each LRIP sustainment readiness review and participate in forums that will discuss and evaluate performance against PBA requirements for the initial sustainment phases.

- 2.1.2 Recognizing that the ALGS will gradually mature during initial sustainment phases, and that one or more Participants may wish to implement ALGS risk mitigation measures to meet their needs, such Participants may:
- 2.1.2.1 Submit PPRs for a study of the scope and the cost of the efforts that would be necessary to make sustainment-related Information acquired under the JSF SDD Framework MOU and contained in JSF Information systems, including but not limited to, the JSF Data Library (JDL), more readily accessible and usable by the Participant(s) (within the constraints of national disclosure policies) for ALGS activities, or PPRs for a study of the scope and the cost of the acquisition of other sustainment-related Information and associated rights of use, or for acquisition of greater rights of use in Information already in the possession of the Participant(s), to facilitate ALGS activities.
 - 2.1.2.2 Submit follow-on PPRs for the efforts necessary to make the sustainment-related Information acquired under the JSF SDD Framework MOU and contained in JSF Information systems, including but not limited to, the JDL, more readily accessible and usable by the Participant(s) (within the constraints of national disclosure policies) for ALGS activities, or PPRs for the acquisition of other sustainment-related Information and associated rights of use or the acquisition of greater rights of use in Information already in the possession of the Participant(s), to facilitate ALGS activities.
 - 2.1.2.3 Propose to the JESB commonly funded efforts to make the sustainment-related

Information acquired under the JSF SDD Framework MOU and contained in JSF Information systems, including but not limited to, the JDL, more readily accessible and usable by the JSF Program Office and the Participants (within the constraints of national disclosure policies) for ALGS activities, or to acquire other sustainment-related Information and associated rights of use or to acquire greater rights of use in Information already in the possession of the Participants, to facilitate ALGS activities that would be beneficial to all Participants.

2.1.3 The Participants acknowledge that the U.S. DoD intends to acquire capability for its organic depot support, and that other Participants might implement similar unique efforts. The U.S. DoD and such other Participants may provide to the Project, subject to the determination of the providing Participant, the Information obtained as a result of acquiring this capability to support the Participants' common depot support requirements. Any such Information provided will be considered, in the case of the receiving Participant, to be Project Background Information in accordance with paragraphs 9.3 and 9.5 of Section IX (Disclosure and Use of Project Information).

2.1.4 The mature sustainment phases will commence upon the issuance of long term Contracts wherein deliverables are delineated as PBL outcomes. The Participants envision that these Contracts will be issued during full rate production, after which sustainment will enter into a steady state phase.

3.0 ALGS

3.1 Principles for ALGS are identified in Section III (Scope of Work) of this MOU. The Participants intend that ALGS will feature the following:

- 3.1.1 System support from all JSF Air System Contractors, as integrated by a product support integrator, to meet the requirements of each Participant, as identified in each Participant's PBA. The JSF Program Office plans to use a product support integrator that will be responsible for integrating ALGS sustainment support, both Government and Contractor, defined within the scope of the PBL approach.
- 3.1.2 Support-services and articles (excluding consumables such as fuels and oils) and the use of facilities that are obtained by a Participant for its unique requirements, provided that such services, articles, and facilities are recognized as being part of ALGS in that Participant's PBA. Such services, articles, and facilities may be made available for use by other Participants with the consent of the offering Participant, subject to inclusion of such services, articles, and facilities in the relevant PBAs.
- 3.1.3 ALGS operations that support the Participants' fleets in the logistics domains listed in paragraph 3.3.3 of Section III (Scope of Work) and provide insight into and oversight of delivery of sustainment performance outcomes. The JSF Program Office, including JSF CPPs provided in accordance with Annex B (Management Structure), will participate in ALGS operations. JSF CPPs will participate by providing the following:
 - 3.1.3.1 Monitoring of the ALGS and the JSF Air System to ascertain effectiveness for all Participants.
 - 3.1.3.2 Assessment of ALGS performance to determine whether it is meeting the Participants' requirements.

- 3.1.3.3 Coordination among fleets including configuration management and spares and resource management.
- 3.1.3.4 Development, implementation, and continuous support of ALGS capabilities.
- 3.1.3.5 Insight into their Participant's Government-furnished support services and articles and Government facilities.

3.1.4 Adequate capacity to:

- 3.1.4.1 Optimize support during peacetime operations but enable increased sustainment levels to meet simultaneous operational tempo increases of all Participants, as defined by Participants within their individual PBAs. In addition to this capacity, required levels of sustainment during follow-on development activities will be provided.

- 3.1.4.2 Support unique or Partially Common sustainment capacity and sparing.

- 3.1.4.2.1 Participants may require additional sustainment capacity within the ALGS that is unique to one Participant or Partially Common. A Participant's requirements for additional sustainment capacity will be defined within PPRs. Support relationships (i.e., roles and responsibilities of the JSF Program Office and the Participant) and performance metrics required to support this additional capacity will be captured in that Participant's PBA.

3.1.4.2.2 ALGS will manage common, Partially Common, and unique JSF Air Systems spares that have been procured for a Participant's spares requirements. Participants may specify spares contingency support packages, which will also be managed through ALGS, to meet their specified levels of sustainment performance. Maximization of economies of scale and pooling of spares will be implemented. A Participant acquiring Partially Common or unique spares will be responsible for the additional costs to manage such spares within the ALGS.

3.1.5 Ensuring that sustainment-related Project Information acquired in the implementation of Section III (Scope of Work), in accordance with Section IX (Disclosure and Use of Project Information), and delivered under Contracts for the Project through Information systems (including, but not limited to, the JDL) is readily accessible and usable for ALGS activities, within the constraints of national disclosure policies.

3.1.6 Acquiring and exchanging sustainment Information, and providing articles (including equipment, consumables and spares) as provided in paragraph 3.3.2.1 of Section III (Scope of Work), as required to deliver sustainment outcomes and maximize affordability, within the constraints of national disclosure policies.

3.1.7 The JSF configuration modification and control process, under which Participants are made aware in advance of all changes to their JSF Air System configurations. Participants retain final responsibility for

the continued airworthiness and the 'as-maintained' configuration of their fleets. The Participants will be provided adequate information and support, to comply with Participants' national aviation regulations and requirements.

- 3.1.8 A prioritization process for sustainment support, the foundation of which is based on each Participant's contracted performance metric levels and operational status of the Air Vehicle.

4.0 The Performance-Based Arrangement (PBA)

- 4.1 A PBA will identify support relationships (i.e., roles and responsibilities of the JSF Program Office and the Participant.) A PBA will also define the sustainment performance outcomes required by each Participant. These requirements will be placed on Contract, on behalf of the Participants, in accordance with paragraph 6.1 of Section VI (Contracting Provisions).
- 4.2 The Participants will maintain commonality in the format of PBAs, to the maximum extent possible. Each PBA will include, as a minimum:
 - 4.2.1 A set of commonly defined metrics at the JSF Air System level (e.g., mission capable rate and degree of logistic footprint changes), under which each Participant can define its required level of sustainment performance for each metric.
 - 4.2.2 The support relationships (i.e., roles and responsibilities of the JSF Program Office and the Participant), in the provision of sustainment outcomes to that Participant. This will include the responsibility of the Participant to provide articles and services for its sustainment requirements, including but not limited to, Government-furnished equipment and Information, service manpower and returning spares and repairables.

4.2.3 Other provisions applicable to the Participant's PBA, such as:

- 4.2.3.1 Participant constraints or conditions (e.g., detailing point of delivery of the sustainment outcomes or use of Participant unique repair facilities).
- 4.2.3.2 Unique maintenance Information requirements (for example, technical publications written in a non-English language).
- 4.2.3.3 Requirements for increased operational tempo (as applicable).
- 4.2.3.4 Training requirements.

4.3 The JSF Program Office will cooperate with duly authorized representatives of each Participant to establish each Participant's initial PBA or update an existing PBA. The final PBA between the JSF Program Office and the Participant, will be signed by the JSF PEO, or designee and applicable Participant in sufficient time to support a Request for Proposal (RFP) release for the sustainment requirements specified in the PBA. Periodic reviews between the JSF Program Office and duly authorized representatives of the Participants may result in revised PBA requirements that reflect improvements and developments in the ALGS.

4.4 If a change to a PBA necessitates a modification of a Contract, the Contracting Officer will negotiate the modification with the Contractor, in a timely manner, for incorporation into the Contract, in accordance with Section VI (Contracting Provisions).

5.0 Sustainment Performance Review

5.1 An annual review of overall JSF Air System sustainment performance will be conducted by the JSF Program Office with each Participant and relevant Contractors with a summary provided to the JESB. The summary may include recommendations as to improvements.

- 5.2 Each Participant will have continual visibility of its fleet's ongoing performance through a sustainment performance management system developed during the JSF SDD phase.

ANNEX E

FOLLOW-ON DEVELOPMENT PROCESS

1.0 This Annex establishes the provisions that will govern the conduct of JSF Follow-on Development. JSF Follow-on development will use an evolutionary acquisition approach that will deliver capabilities in approximately two-year increments. The principles of cost-as-an-independent-variable and cost-and-operational-performance-trades will be applied to the prioritization and selection of new increments of capability.

2.0 JSF Air System candidate capabilities will be documented in the JSF Air System Product Roadmap (hereinafter "Roadmap"), by the Requirements Working Group (RWG). The Roadmap will be the overarching document used to guide the time-phased implementation of follow-on development capabilities. As new capabilities are proposed by the Participants, they will be cataloged in the Roadmap for consideration into future increments.

- 2.1 Proposed follow-on development capabilities will be derived from a variety of sources including, but not limited to those listed at paragraph 3.4.1 and 3.4.2 of Section III (Scope of Work).
- 2.2 Common development will be encouraged to maintain a common configuration for maximum affordability and interoperability. In addition, Partially Common or unique requirements and capabilities (to include quick reaction or urgent operational requirements) will be considered.
- 2.3 The RWG will function as the Follow-on development process manager and requirements integrator.
- 2.4 The following process will be used to identify and prioritize possible increments of capability:
 - 2.4.1 After identification of program constraints, including but not limited to available funding, contractor work load, testing capacity, operational urgency, unique requirement desires, and the technical maturity of proposed capabilities, the RWG will refer to the Roadmap to identify potential new increments of capabilities and

will present these capabilities to the JSF Operational Advisory Group (OAG).

2.4.2 The OAG will conduct three rounds of voting over an 18-month cycle culminating in the ranking of potential increments of capability and the recommendation of a new capability increment. These meetings will be as follows:

2.4.2.1 Meeting #1, the OAG will vote to select candidate capabilities from the Roadmap. Each OAG participant will assess a level of interest to each candidate capability (for example, High 9 points, Medium 6 points, etc.). The output of meeting #1 will be a recommended common, Partially Common, and unique requirements list, and identification of capability specific trade studies to be executed. This list will represent approximately 125% of estimated constraints.

2.4.2.2 Meeting #2, the OAG will vote to prioritize capabilities and develop two to four possible increment options for further detailed operational analysis. These possible increments, which will be a composite of common, Partially Common, and unique requirements, will represent approximately 110% of estimated constraints. Each Participant's share of votes will be based on the Composite Share Ratio.

2.4.2.3 Meeting #3, the OAG will vote to rank the possible increment options and recommend one of the possible increment options for acquisition decision and execution. This increment will represent 100% of estimated constraints. Each Participant's share of votes will be based on the Composite Share Ratio.

- 2.4.3 The OAG recommendation will be provided to the Senior Warfighters Group (SWG) for coordination and concurrence. The SWG will either unanimously concur with the OAG's recommendation or lacking consensus, will vote to re-prioritize the increment options using voting shares based on the Composite Share Ratio. Their concurrence or alternate recommendation will be provided to the JESB.
- 2.4.4 The JESB will approve the configuration for execution.

ANNEX F

ESTIMATED ALLOCATION OF FINANCIAL COST CEILINGS

1.1 The estimated allocation of the shared production non-recurring costs in TY U.S. dollars of the Financial Cost Ceiling in paragraph 5.2.1 of Section V (Financial Provisions) is as follows:

Participant	Estimated Cost Allocation
Australia	\$0.230B
Canada	\$0.184B
Denmark	\$0.110B
Italy	\$0.302B
The Netherlands	\$0.196B
Norway	\$0.110B
Turkey	\$0.230B
United Kingdom	\$0.318B
United States	\$5.623B

1.2 The estimated allocation of the shared sustainment non-recurring costs in TY U.S. dollars of the Financial Cost Ceiling in paragraph 5.2.2 of Section V (Financial Provisions) is as follows:

Participant	Estimated Cost Allocation
Australia	\$0.042B
Canada	\$0.033B
Denmark	\$0.020B
Italy	\$0.055B
The Netherlands	\$0.035B
Norway	\$0.020B
Turkey	\$0.042B
United Kingdom	\$0.058B
United States	\$1.018B

1.3 The estimated allocation of the shared follow-on development non-recurring costs in TY U.S. dollars of the Financial Cost Ceiling in paragraph 5.2.3 of Section V (Financial Provisions) is as follows:

Participant	Estimated Cost Allocation
Australia	\$0.418B
Canada	\$0.334B
Denmark	\$0.200B
Italy	\$0.547B
The Netherlands	\$0.355B
Norway	\$0.200B
Turkey	\$0.418B
United Kingdom	\$0.576B
United States	\$10.202B